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# Environmental Contaminants Board of Review

Report on:

## PCBs (POLYCHLORINATED BIPHENYLS)

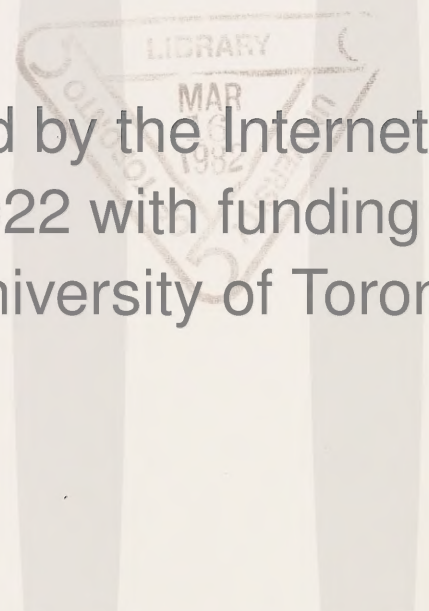

This Board was established as a result of objections to proposed Chlorobiphenyl Regulations published in the Canada Gazette - Part I on December 2, 1978.

March 1980



**FIRST REPORT  
OF THE  
PCB BOARD OF REVIEW**

**ENVIRONMENTAL CONTAMINANTS ACT**



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ENVIRONMENTAL CONTAMINANTS ACT

PCB BOARD OF REVIEW

1302 - 200 Rideau Terrace  
Ottawa, Ontario  
K1M 0Z3

February 25, 1980

The Honourable John Fraser, P.C., M.P.  
Minister of Environment

and

The Honourable David Crombie, P.C., M.P.  
Minister of National Health and Welfare

Dear Ministers:

The PCB Board of Review was appointed by letter addressed to each member of the Board and dated November 1, 1979, under the hand of the Honourable John Fraser, P.C., M.P., Minister of the Environment. The Board has now completed its inquiries and studies with respect to the proposed amendments to Chlorobiphenyl Regulations No. 1 for which purpose it was appointed and herewith submits its Report.

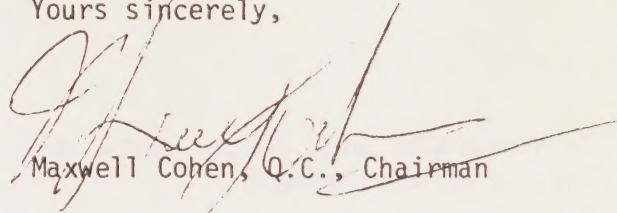
This Report is described as the First Report and deals with the general policy of the program to eliminate PCBs from the Canadian environment as well as with the proposed amendments as published.

The Government of Canada requested this Board, as the first Board of Review under the Environmental Contaminants Act, to study also the better organization and functioning of Boards of Review under that Act. It was believed that such a study by this Board would be useful because of the particular experiences derived from its activities. The PCB Board of Review therefore will continue in operation until it completes and submits to both Ministers a Second Report on this subject.

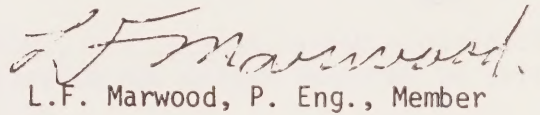
The Board wishes to thank the Ministers and their officials in the Department of the Environment and the Department of National Health and Welfare for their cooperation in making it possible to complete the First Report expeditiously under conditions where there were no precedents to guide the Board or the officials in the somewhat novel procedures as set

out in Sections 5 and 6 of the Environmental Contaminants Act. In particular, the Board wishes to express its appreciation for the services rendered by Dr. H.S. Thompson who had been seconded to the Board from the Department of the Environment and has acted with devotion and efficiency in assisting the Board with all of its administrative and secretariat problems.

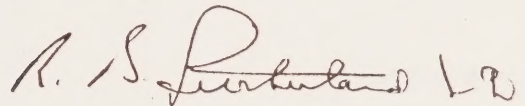
Yours sincerely,

A handwritten signature in dark ink, appearing to read 'Maxwell Cohen', with a long horizontal flourish extending to the right.

Maxwell Cohen, Q.C., Chairman

A handwritten signature in dark ink, appearing to read 'L.F. Marwood', with a long horizontal flourish extending to the right.

L.F. Marwood, P. Eng., Member

A handwritten signature in dark ink, appearing to read 'R.B. Sutherland', with a long horizontal flourish extending to the right.

R.B. Sutherland, M.D., Member

PCB Board of Review

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## PREFACE

This Report is an attempt to execute the obligations of a Board of Review under Sections 5 and 6 of the Environmental Contaminants Act. However, the Board is conscious of the fact that the Report probably goes further than would normally be the case for Boards of Review under this statute. The Act itself contemplates varieties of consultative mechanisms in reaching decisions on regulations and the Board has had the benefit of this approach also in its several discussions with officials over and above the public hearings and submissions which were the basis of its information-gathering procedures. This broadening of the scope of the Board's inquiry is, in general, a response to the invitation of the Government of Canada for the Board to comment on some of the large issues of policy that became the framework within which specific regulations are conceived and are to be understood. For these reasons, and since this is the first Board of Review under the Environmental Contaminants Act, the scope of the present Report may tend to be wider than future Reports except where a similar invitation is presented to a Board for a broad response. This Board has not sought longevity, it has been thrust upon it.

## SUMMARY OF COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

### PART I

#### POLICY QUESTIONS RAISED BY THE GOVERNMENT OF CANADA AND OTHER WITNESSES AND SUBMISSIONS

##### 1           **The Attrition Policy**

In the Board's view a policy of phasing out of PCBs is the necessary route to follow since any "command" at once to "cease and eliminate" would be unrealistic in the short run or even the medium term.

The Board is concerned that the Government's program to achieve, by "attrition", the elimination of PCBs from the Canadian environment is not one that promises a reasonably early resolution to the problem. Some other approach, therefore, would seem to be necessary both to reduce the time-scale for its own sake and to achieve a higher degree of public acceptance and general credibility for the program. (See page 9.).

##### 2           **An Alternative to Attrition**

In the Board's view the Government of Canada and the provinces concerned should consider a fixed percentage of all equipment using PCBs to be retired annually, e.g. five percent. This would provide very specific targets to all users; it would encourage the manufacture of replacement fluids and equipment; it would encourage all governments to step up the storage and waste disposal programs; it would encourage industry to plan its retirement of equipment more systematically; it would assure the public of a definite time span within which the use of PCBs in all equipment would be eliminated, e.g. twenty years; and, finally, it would encourage the creation of a more systematic administration of the retirement program. (See page 10.).

##### 3           **Replacement Fluids**

The Board believes that the Government of Canada should give a high priority, in cooperation with industry, to determining and agreeing upon acceptable replacement fluids for PCBs.



The Board also wishes to observe that the proposed program for replacement fluids provides an opportunity for governments to monitor leaks and spills because the replacement process would provide documentation for identifying a loss that in many cases could only have resulted from a leak or a spill. (See page 11.).

#### **4           Transportation Problems**

The Board believes that it should make the following observations in the hope that such comments may help to speed up the process now under way for the better control of the transportation of PCBs:

- a) it would be urgent for the Government of Canada to enact as soon as possible legislation such as Bill C-25 (as it was known before lapsing because of the recent dissolution of Parliament) dealing with the transport of dangerous goods. (See page 12.).
- b) very specific rules are necessary for the handling of PCBs because of employee safety, as well as the ease with which PCBs contaminate other materials and the external environment, should there be accidental spillages en route. (See page 12.).
- c) routes should be established that provide the shortest line with the least risk between the place of utilization of PCBs and the storage or disposal site. (See page 13.).
- d) care must be taken with respect to any equipment containing PCBs where such equipment is moved to be used elsewhere or is transported for storage or for disposal. (See page 13.).
- e) there is an urgent need for mandatory rules and regulations that would govern all forms of transportation of hazardous materials and wastes. These regulatory systems should be contained within a single and readily understood Code, if possible. (See page 13.).

#### **5           Storage, Waste Disposal Facilities and Public Opinion**

Central to any program for the retirement and replacement of equipment using PCBs is the presence of adequate storage facilities for PCBs or for flushing residues contaminated by PCBs and, similarly, facilities for the eventual disposal of PCBs so stored, as a hazardous waste. Without adequate storage facilities and effective waste disposal procedures, a systematic phasing out of PCBs is bound to be difficult or unlikely because of the dependence on safe storage for fluids being prepared or held for eventual disposal and, too, dependence upon reliable disposal technologies.

The Board recommends that federal and provincial governments in cooperation with each other, if they are convinced that high temperature incineration is the procedure of choice today, should find a site which, to satisfy public concern, should preferably be distant from a populated residential community, and begin the public education process required to make that siting convincing and acceptable. Public education therefore about these programs is vital if there is to be community confidence in this continuing process of moving, storing and disposing of PCBs and other toxic and contaminated materials. (See page 15.).

## **6 Local Health Problems and Environmental Effects**

The Board believes that it is desirable that the Government of Canada should take into account the health of federal workers in contact with equipment containing PCB fluids. (See page 16.).

For non-federal employees the provinces have the primary jurisdiction in this area -- although joint federal-provincial occupational health studies are conducted as necessary.

Governments also must be aware of the potential hazards posed by PCB-type equipment to the general environment within the plant, or mine, or power station, etc. concerned, and to the surrounding community environment to the extent that the health of the public and the well-being of the water-land-air complex of the region may be affected. (See page 16.).

## **7 Guidelines and Regulations - Federal and Provincial**

Only by having national rules can the entire unity of the program to eliminate PCBs from Canadian use, in the Canadian environment, be achieved. The Board would therefore recommend that the Government of Canada consider replacing present Guidelines, wherever relevant and practical, which now express the Federal Government's views on storage and all other aspects of the PCB problem, with uniform rules and regulations, jointly agreed upon by the federal and provincial governments concerned, and enacted as Federal Regulations. The effect of this recommendation would result in a national system of rules but delegating to the provinces the administration and implementation of those regulations dealing with storage and the disposal of PCB wastes. (See page 17.).



## **8 The Philosophy of Legislation**

The Environmental Contaminants Act may be regarded as legislation designed essentially to prohibit various forms of individual or corporate behaviour. The language of the Act, as the Board views it, is very largely prohibitory rather than managerial. The Board therefore recommends an early examination by Government of the philosophy of the Act in order to bring into operation a legislative instrument which will empower Government to deal -- whenever possible in cooperation with industry -- more effectively through positive action programs which probably are not possible under the present Act. (See page 18.).

## **9 The Development of Civil Liability, Law and Policy**

It is quite clear that in "environmentally sensitive areas" (see Part II for definition) special care must be taken by manufacturers and users. Degrees of culpability ranging from simple "negligence" to "absolute liability" in relation to "environmentally sensitive areas" require the special attention of any environmental protection system. Increasingly the burden of responsibility in society may be shifting to those who manufacture or introduce the toxic substance or contaminant into the environment and that degree of liability must be so weighted as to ensure the maximum of prudent behaviour. (See page 20.).

## **10 A National Advisory Council on Environmental Quality**

It is the Board's opinion that a group of well-informed and aware citizens from the academic, business, agricultural, labour and environmental constituencies could perform a very useful function in an advisory capacity. The Board envisages the possible creation of a National Advisory Council on Environmental Quality to be responsible to the Minister of the Environment or jointly to him and the Minister of National Health and Welfare. The purpose of the Council would be to act as a sounding board for governmental and private ideas and as a source of creative suggestions for research or administrative programs. Some senior members of the Government Departments concerned should be on the Council in order to provide close links that would serve the Council's informational needs and interests while providing the Government itself with a continuous insight into the Council's thinking but where the large majority are nongovernment members. In this perspective the 1972 Canadian Environmental Advisory Council would merge with the proposed National Advisory Council. (See page 21.).

## **PART II**

### **THE PROPOSED AMENDMENT TO CHLOROBIPHENYL REGULATIONS NO. 1 AND THE ENVIRONMENTAL CONTAMINANTS ACT GENERALLY**

#### **A. PROPOSED AMENDMENT TO CHLOROBIPHENYL REGULATIONS NO. 1**

1. The effect of the proposed amendments to the Chlorobiphenyl Regulations No. 1 is to ban the importation and manufacture of PCBs, and to prohibit their use after July 1, 1980, in any equipment or machinery except transformers, electromagnets, etc. in which they are effectively enclosed. The Board supports the proposed amendments to Chlorobiphenyl Regulations No. 1 as set out in the Canada Gazette, Part I, pages 7117-7118, dated December 2, 1978, and modified by the transmittal of January 31, 1980, from the Government to the Board (See Appendix A-6). (See page 27.).
2. The Board recommends that:
  - a) although the operation of electromagnets in the food and animal feed industries is prohibited after July 1, 1980, by Section 3(6) of the January 31, 1980, version of the proposed amendments, in the interest of anticipating any possible loopholes the use of any equipment or machinery -- not only electromagnets -- containing PCBs be prohibited, in the production or processing of food, milk, animal feed and water, at as early a date as possible. (See page 27.).
  - b) when a practical and effective system for the destruction of PCBs becomes operational the continued use of all equipment containing PCBs be phased out in a systematic manner as described in Part I of this Report. (See page 27.).

#### **B. THE ENVIRONMENTAL CONTAMINANTS ACT AND SOME OF ITS PROBLEMS**

##### **1 Environmentally Sensitive Areas**

The Board proposes that the term "environmentally sensitive areas" be used to designate special segments of the environment to which contamination by toxic chemicals

would present a greater-than-normal local hazard, e.g. food, water, arable land and public health. (See page 28.).

The Board recommends therefore that early and careful consideration be given to defining and regulating with special concern "environmentally sensitive areas" under the Environmental Contaminants Act. (See page 28.).

## **2 Release of Contaminants to the Environment**

The Board noted that in Section 8(1) of the Act there appears to be a difference in the meaning between the English and French versions. The wording of these versions is such that the French version may be interpreted as a weaker provision than the English one. The Board recommends that the Act be amended to rectify these differences. (See page 29.).

The Board also recommends that any release of a scheduled substance to the environment in a quantity or concentration in excess of that specified in the regulations, or under conditions specified in the regulations, shall be reported to the Minister or his designated agent within a stipulated period of time by any person engaged in any use of a scheduled substance or in the transportation of such substances or of equipment or receptacles containing such substances. Provincial governments may be designated as agents for the purpose of this Section or other Sections of the Environmental Contaminants Act. (See page 29.).

The Board recommends that the Government consider means whereby lower limits may be set governing the release of toxic substances in, or in the proximity to, installations where milk, food, water or animal feed is produced, processed, stored or used. (See page 30.).

The Board further recommends that there be a mandatory requirement to immediately report any such releases to the Minister or his agent. (See page 30.).

## **3 Transfer of Ownership**

The Board questions whether Section 8 of the Act adequately achieves the need to fix responsibility in the case of transfers, gifts or any acts not amounting to a sale as well as to plain abandonment. (See page 30.).

The Board recommends that Section 8 be amended to ensure the fixing of responsibility on any possessor or user of a scheduled substance or equipment containing a scheduled substance, however that equipment or substance may have come into his possession. (See page 30.).



Similarly, the Board recommends that the Government limit or prohibit any transfer of such equipment or scheduled substance with the intention of circumventing the prohibitions of this Act. (See page 30.).

#### **4 Export**

The Board believes that the Environmental Contaminants Act or other legislation should prohibit the export of PCBs or other toxic substances, or of machinery, equipment or products that contain toxic substances as well as their transport across international boundaries whether a sale or transfer of ownership is involved or not -- except for transportation designed to implement an agreed upon storage or disposal arrangement abroad. (See page 31.).

#### **5 Control of Products Containing PCBs**

The Board believes that control over product contamination would be enhanced if the Act were amended to include a regulation requiring the reporting, upon discovery by an importer, manufacturer, processor or owner of the presence in a product of PCBs exceeding the concentration specified in the regulations. The reporting of other and related information, on quantities, storage, etc., would be equally desirable. (See page 31.).

The Board recommends that all agencies, federal and provincial, involved in health protection activities should coordinate their efforts concerning PCBs, e.g. through the Department of National Health and Welfare. (See page 32.).

The Board is concerned with the scope of the important phrase in Section 8(3) "good manufacturing practice". The Board recommends that it would be desirable to add a further criterion to guide the manufacturing and commercial community, namely, the phrase "and consistent with the lowest possible concentration". (See page 32.).

#### **6 Inspection**

Section 10(1) of the Environmental Contaminants Act limits the inspection of premises to those instances where the inspector has reason to believe that a provision of the Act has been contravened.

The Board recognizes the need for opportunities to be given to properly designated officials to enter upon premises not only to see if an offence is being committed but also to encourage better planning and pollution control.



The Board therefore would recommend that if a broader management policy -- as against simple prohibition -- emerges as the legislative policy of this Act (see Part I page 17) the necessary powers will have to be given to inspectors for them to execute the objectives of the legislation. The Board is aware of the caution that must be exercised in any such grant of inspection authority. (See page 32.).

## **7 Inventory of PCB-Containing Equipment**

The Board recommends amendment of Section 18(i) of the Act:

- a) to include the "commercial use" of PCBs; and,
- b) to provide authority to regulate the keeping of records of:
  - (i) any equipment, machinery or other devices that may contain a scheduled substance in a quantity or concentration in excess of those specified in the regulations; and,
  - (ii) the operational use of such equipment. (See page 33.).

The Board further recommends that an owner, importer, manufacturer, processor, etc. be required by regulation to maintain an inventory of all equipment, machinery or devices that contain a scheduled substance, and to provide Environment Canada with:

- a) a copy of the inventory or of any changes therein including the fluids used;
- b) the amount of the scheduled substance present in the said equipment, etc.;
- c) the age and condition of the equipment; and,
- d) information as to the location of the said equipment, etc. on the property and its proximity to an "environmentally sensitive area". (See page 33.).

Environment Canada doubtless will establish and maintain its own inventory based on such information. (See page 33.).

## **8 Labelling**

The Board recommends that the Environmental Contaminants Act be amended to provide authority for the making of regulations governing labelling on all containers of toxic materials or products that contain toxic substances. (See page 34.).

## **9 Abandonment of PCB-Containing Equipment**

The Board recommends that consideration be given to amending the Act to include a definition of "abandonment" in Section 2 of the Act and the prohibition under

Section 8 of the abandonment of any toxic substance or any equipment, devices, containers or products containing a toxic substance in excess of the quantities or concentrations specified in the regulations. (See page 34.).

As an additional or alternative suggestion, the Board proposes that consideration be given to enacting under this or other enabling legislation regulations to require that an owner of such machinery or equipment pay an annual performance or maintenance premium on each piece of machinery or equipment containing a toxic substance, in relation to the size of the instrumentality, to be held by the Government of Canada and to be refunded to the owner upon his demonstrating to Environment Canada that the said machinery or equipment has been disposed of in a way acceptable to the Minister. (See page 34.).

## **10 Mandatory Reporting**

Section 4(6) of the Environmental Contaminants Act requires the reporting to the Minister of the importing or manufacture of a chemical compound in excess of a quantity of 500 kilograms on the occasion of its first importation or manufacture. This Section does not require the reporting of elemental chemicals which may be potentially hazardous to health or the environment and therefore the Board recommends that consideration be given to amending the Section accordingly. (See page 35.).

## **11 Penalties**

The Board notes that Section 8(5) of the Environmental Contaminants Act specifies a maximum fine or a maximum term of imprisonment upon conviction for an offence under this Section of the Act but it does not specify a minimum penalty.

The Board recommends that the Government should give consideration to strengthening the Environmental Contaminants Act by stipulating different mandatory minimum fines for industry and the private individual. (See page 35.).

Section 17 of the Act states that an offender shall be punishable on summary conviction which carries a comparatively low maximum fine or six months imprisonment. It would appear that a polluter could choose summary conviction as a penalty for barring entry to an inspector who has reason to believe that an offence under Section 8 is being committed and in this way avoid the higher penalty provided under Section 8. (See page 35.).

The Board recommends that the penalty for offences under the Act other than those under Section 8 should be studied to determine whether the relevant Criminal Code

provisions, and penalties applicable to summary convictions, are adequate for the objectives of the Environmental Contaminants Act, if the Act is to be effectively enforced. In particular the six months limitation on any prosecution under Section 721 of the Criminal Code presents obvious difficulties. (See page 35.).

## **12 General Observations**

The Board takes note of some confusion in the definitions of "class of substances" in Sections 2(1) and 4(5) and referred to also in Section 4(4) and the potential conflict in the meanings that now appear to be possible. (See page 36.).

Similarly, the Board wishes to observe that in the definition of "release" under Section 2 no reference is made to releases that are the result of abandonment of equipment. (See page 36.).

There are also a number of problems involving Section 10 where documents may not be on site but at headquarters and cannot therefore be examined; and under Section 17 where all offences other than those covered by Section 8 fall within the summary conviction provisions of the Criminal Code. The Board recommends that a review of the enforcement effectiveness of the Environmental Contaminants Act, and related legislation, be undertaken to ensure an overall efficiency in aid of a national policy to protect the environment. (See page 36.).





## INTRODUCTION

The Minister of the Environment in association with the Minister of National Health and Welfare appointed a Board of Review pursuant to Section 6 of the Environmental Contaminants Act, Statutes of Canada 1975, 23-24 Eliz. II chapter 72, (Appendix A-1), and under the announced intention of the Government of Canada to establish such a Board as stated in the Canada Gazette, October 6, 1979, and cited in Part I, October 6, 1979, pages 6286-87 (Appendix A-2). The members of the Board are Professor Maxwell Cohen, Q.C., Chairman, R.B. Sutherland, M.D., and L.F. Marwood, P. Eng. Hazen Thompson, Ph. D, of the Department of the Environment was seconded to the Board to act as Executive Secretary of the Board. He was assisted by Mme J. Lacroix of that Department. The Board met in a consultative session with officials of the Department of the Environment and the Department of National Health and Welfare on November 7, 1979, in the L.B. Pearson Building, Ottawa, Ontario, and met in executive session afterwards with the three Board members and the Executive Secretary alone in attendance. A further session was convened on November 14, 1979, when the Board met with officials from these Departments and later in executive session.

Pursuant to the notice published in the Canada Gazette on October 6, 1979, to the effect that a Board of Review was established and that public hearings would be held on December 10, 1979, the Board proceeded with such public hearings after due notice had been given through the press that the Board would receive requests to be heard on the part of all "interested and knowledgeable persons" providing such a desire to be heard was brought to the attention of the Board by Friday, December 7th at 5:00 p.m.

The Board sat in public session on December 10th where the Government of Canada (Appendix B), the Ontario Mining Association (Appendix C) and the Canadian Paperworkers Union (Appendix D) presented written submissions; detailed discussions were held with all witnesses, although the Paperworkers' brief was read into the record in the absence of any representative of the Union at the hearings.

A Board of Review under the Environmental Contaminants Act is established under Section 6 when a notice of objection is duly filed with the Minister under Section 5(3), for purposes of objecting to a proposed regulation to be promulgated under the Environmental Contaminants Act and pursuant to the procedures set out therein. The proposed amendments to Chlorobiphenyl Regulations No. 1 dealing with PCBs about which notice had been given in the Canada Gazette, Part I, pages 977-979, on February 26, 1977

(Appendix A-3), with the Order coming into effect in September 1977 (Appendix A-4), were set out in a notice published in the Canada Gazette on December 2, 1978, Part I, page 7117-7118 (Appendix A-5). Pursuant to that notice, and as a result of discussions with "interested parties" several notices of objection were received by the Minister of the Environment. However, all but two of these were withdrawn by the time the present Board was established. Immediately after the appointment of the present members of the Board in letters from the Honorable John Fraser, P.C., M.P., Minister of the Environment and dated November 1, 1979, one of the two remaining parties that had filed a notice of objection, namely The Iron Ore Company of Canada, informed the Minister that it was withdrawing its objection. A few days later when the Board met for its first session on Wednesday, November 7, 1979, the Board was informed by representatives of the Department of the Environment that a telegram from Eurocan Pulp and Paper Co. Ltd., Kitimat, B.C., withdrawing its objection had been received hours before. That company was the only remaining objector. The question rose at once as to whether the Board had any standing in view of the withdrawal of all notices of objection that had been filed, and in view, also, of the absence of any written communications from other "interested and knowledgeable" persons that they intended, under Section 6(2), to be present and make representation to the Board at the public hearings on December 10, 1979.

The Board discussed the situation with all officials present at the meeting on November 7, 1979. Thereupon the Board invited the Government of Canada to present the views of the Government, in writing, to the Board on the question of the status and duties of the Board in the absence of any notices of objection since all of these had been withdrawn by the parties whose original initiative in filing notices of objection had led to the establishment of the Board. The Board brought to the attention of the Government, in the course of this request for its views, the following points:

- a) the Board was established by Ministerial Order under Section 6(1) of the Act and was now in being.
- b) an Order published in the Canada Gazette of October 6, 1979, announced public hearings to be held on December 10, 1979, and the Board was concerned about the nature and significance of that public commitment.
- c) once established under Section 6, the Board had, under Section 6(3), all the powers of a Commissioner functioning under Part I of the Inquiries Act. This particular provision of the Environmental Contaminants Act, so defining the powers of the

Board, would have to be considered in determining the continuing status, if any, of the Board.

Before the Board received the views of the Government of Canada the Board concluded that as a Board operating under the Inquiries Act its proceedings, including those dealing with its status and jurisdiction, should be considered as public proceedings. For these reasons, and before the receipt of the Government's opinion, the Board communicated with the Minister suggesting that it would be wise and necessary to proceed as the notice in the Canada Gazette of October 6, 1979, had provided, namely, to convene and hold public hearings on December 10, 1979.

The Board's letter to the Minister crossed with the letter of the Deputy Minister, Mr. J.B. Seaborn, to the Board and dealing with the question put to the Government about the continuing status and activities of the Board in view of the withdrawals of the notices of objection. It was the Government's view that with the withdrawal of these notices of objection the rationale for the Board's continued existence and functions had ceased and that the Board should terminate its activities.

The Board met with officials of both Departments on November 14, 1979, and decided, after consultation, that, once created, the status of the Board under the Environmental Contaminants Act -- as well as under the provisions of Part I of the Inquiries Act -- as set out in an Order published in the Canada Gazette of October 6th required that the Board should continue to exist and hold its public hearings on December 10th as stated in the Canada Gazette.

The difficulties that arose from the withdrawal of the notices of objection, and the additional difficulty that certain earlier communications between the National Indian Brotherhood and the Minister were not deemed to be a proper notice of objection, have given rise to a number of questions about the proper operations of Boards of Review under the Environmental Contaminants Act. Since the present Board is the first Board to be created under the Act, and since these important questions of standing and procedures were now before the Government for the first time, it was deemed desirable that the Board study the various questions arising out of its experience with the situations created by dismissing notices of objection deemed not to be valid, or by the withdrawal of a notice of objection, or by any other related procedural and administrative matters that might seem to the Board relevant to the future effective operation of Boards of Review under the Act (Appendix E).



The Board is pleased to accept the invitation of the Government of Canada, as set forth in the statement of Mr. R.M. Robinson, Assistant Deputy Minister, Environmental Protection Service, Environment Canada, to the Board on December 10, 1979 (Appendix F), to examine, consider and report upon these questions addressed to the better organization, functioning and administration of Boards of Review. The PCB Board of Review, therefore, intends to file a separate and special Report on this matter.

The present and First Report of the Board of Review will confine itself therefore to the substantive issues before the Board that have been examined in the course of the public hearings on December 10th as well as in correspondence and discussions with officials of the Department of the Environment and the Department of National Health and Welfare. This Report will be divided into two parts.

Part I will deal with the various policy and program issues raised by the Government's rationale for the PCB control program and presented to the Board at the hearings on December 10, 1979.

Part II sets out the Board's views on the specific provisions of Chlorobiphenyl Regulations No. 1, as amended, paying special attention to the proposed amendments which had been the subject of the now withdrawn notices of objection. It is the Board's opinion that a principal duty for it at this time is to examine the proposed amendments as published on December 2, 1978, and as altered on January 31, 1980, in a letter addressed to the Board on behalf of the Government of Canada and written by Mr. R.M. Robinson, Assistant Deputy Minister, Environmental Protection Service, Environment Canada, (Appendix A-6). In the light of this analysis, and of the further questions submitted to the Department of the Environment and the replies thereto, the Board would determine whether the amendments meet the purposes for which they were designed and whether any of the specific words or phrases in the proposed amendments require alteration, further explanation or such other regulatory or legislative changes as would help to achieve the objectives of the proposed amendments and of the legislative base for it.

The Board had reported favorably on the amendments as published on December 2, 1978, in an Interim Report in the form of a letter signed by all members of the Board and dated January 4, 1980 (Appendix A-7). This procedure was followed in order to expedite the process of promulgation of the proposed amendments without the Government having to await the completed Report of the Board. This Interim Report in letter form dated January 4, 1980, has therefore been absorbed into and made part of the

reporting process arising from the submission of January 31, 1980, referred to above and discussed fully in Part II of this Report.

As in the case of the letter of January 4, 1980, referred to above, the Board, after consideration, communicated in a letter dated February 2, 1980 (Appendix A-8), to the Minister of the Environment, The Honorable John Fraser, P.C., M.P., and the Minister of National Health and Welfare, The Honorable David Crombie, P.C., M.P., that the Board was reporting favorably on the amendments as now altered by the wording presented to the Board on January 31, 1980. Accordingly, in addition to the letters written to the Ministers as above, a letter was written on the same date to Mr. R.M. Robinson, Assistant Deputy Minister, (Appendix A-9), because it was his letter of January 31, 1980, (Appendix A-6), that had requested the desired changes to the amendments.

## PART I

### POLICY QUESTIONS RAISED BY THE GOVERNMENT OF CANADA AND OTHER WITNESSES AND SUBMISSIONS

The Government of Canada presented the Commission with a paper read into the record by Dr. J.E. Brydon, Director, Contaminants Control Branch, Environment Canada, (Appendix B) and outlining the rationale for the Government's PCB policy aimed at the elimination of PCBs, in due course, from having any presence in Canada. Historically, it was pointed out that polychlorinated biphenyls (PCBs) had proven to be a most effective coolant to be used in electrical transformers, switchgear, capacitors, heat exchangers, etc. The central advantage of such a fluid in these multiple uses resides in its nondegradability, its dielectric properties and its resistance to high temperatures and thus its ability to persist as a coolant without danger of flammability as it will not support combustion until temperatures go well beyond three hundred degrees Centigrade.

The use of PCBs for over fifty years in such equipment was considered by industry and particularly the electrical components industry, as safe, economic and, until recently, essentially irreplaceable. Other known compositions did not have the advantages of PCBs and posed questions of cost. Some time in the 1950s and 1960s it became apparent that PCBs had a high degree of toxicity affecting all forms of mammals, birds and fish in which traces were found. By 1973 the international consensus on the dangers of PCBs to all forms of life, including the food chain, and its possible carcinogenic effects on man, led to a general agreement under the auspices of the Organization for Economic Cooperation and Development (OECD) to eliminate PCBs from every form of industrial use by member states. Of course, the industrialized world was the principal user of equipment and facilities containing PCBs. These countries also were the main manufacturers of such equipment and of PCBs themselves. The regulation of PCBs, through the control of the manufacture, use, export and import of such equipment, and of the PCBs used therein, had the aim of eliminating PCBs by encouraging the prohibition of their further manufacture, use, import or export. Eventually this would lead to the disappearance of PCBs from use and therefore to their elimination in the environments of all industrial countries and as well from the environments of those countries to which PCBs were exported either as original elements of the electrical equipment, etc. concerned or to refill or replenish supplies lost due to sampling, spills or other reasons.



The 1973 OECD decision has now led to an international program individually carried out by each country as it sees the problem within its own boundaries. Nevertheless, despite disparate approaches, the general movement of all of the industrialized countries concerned has been to enact laws and regulations with the intention of controlling, reducing and, in due course, eliminating the use and presence of PCBs within any segments of industry or commerce of the countries concerned.

Canadian policy reflects this general "obligation" to proceed in parallel with other OECD members toward the objective of a PCB-free society. Yet it was never contemplated that such an objective could be achieved overnight. The presence of PCBs in thousands of transformers, switchgear, capacitors, heat exchangers, etc. was a fact of industrial and commercial life. In Canada, for example, there are estimated to be ten thousand transformers of varying sizes, some requiring only a few quarts of PCBs as a coolant while large electrical power stations may have giant transformers each containing hundreds of gallons.

The range of uses and types of containers inevitably raised a number of important practical questions. What substitutes were available at appropriate costs to replace PCBs not only in all future new equipment but as fillers for existing equipment containing PCBs where alternatives were required to maintain a certain level of fluid, or where PCBs were to be flushed out and be replaced entirely for any number of reasons? What facilities were available in Canada to deal with such PCB fluids when they were removed from existing containers either to store them or most importantly, to dispose of them as toxic, hazardous wastes? Finally, what were the technical problems that were associated with the removal of PCBs; the flushing out of containers to be certain that there were no residues which would contaminate new non-PCB fluids introduced as PCB replacement; the transportation and storage of PCBs once removed from containers; the proper siting and construction of safe storage facilities; the technology and siting of facilities for the elimination of PCBs either in landfill or through their complete destruction and vaporization into non-hazardous gaseous materials; the inventory-taking of all existing transformers, switchgear, etc. and the classification of these and their identification by age, condition, and location with respect to environmentally sensitive areas, and so on?

Such practical questions could only be answered by serious efforts on the part of all levels of government, with the cooperation of industry and supported by continuing research and procedures-development on the part of governments and the private sector,

including universities, in all OECD countries. While continuing research is necessary, the Board is satisfied with the evidence of the Government's efforts during the past decade in acquiring the necessary technical information, in conducting and/or sponsoring research, in commissioning various engineering studies and reports, and in consulting with other levels of government and with industry. In formulating an effective program for the control and elimination of PCBs there is a further complication in Canada of the classical division of jurisdictional authority since the federal power would not necessarily be applicable to the entire continuum from the birth of PCBs in the manufacturing process to their "death," at the end of the line, in the waste disposal system.

Clearly, such a multiplicity of questions of a scientific, technical, economic, administrative and jurisdictional nature would impose time constraints on the speed with which a PCB policy aimed at their total elimination from any industrial or commercial use in Canada could be implemented. In the Government of Canada's presentation to the Board, (supplementing general public knowledge already familiar to the Board), it was stated that "attrition" through phasing out, that is, by the eventual termination of the use of a given transformer, etc., and through the prohibition of PCBs as a refilling fluid, was the policy adopted to meet the economic and technical realities involved. Investigation and general common sense had indicated the simple fact that with about 3.6 million gallons of PCBs (25 million kilograms) now in use or awaiting disposal, there was insufficient manufacturing capacity in Canada for the rapid production of replacement fluids or of the equipment itself, to say nothing of the perhaps more urgent question, namely the means for storage and facilities for PCB disposal as a hazardous waste. In the absence, therefore, of adequate manufacturing facilities and of storage and waste disposal mechanisms, a slow elimination program would coincide with both the economic costs involved in finding suitable replacement fluids and equipment on the one hand, and with the even more difficult problem on the other of governments and industry solving the storage and disposal question without which no reduction and elimination program would be feasible.

The Board is impressed, therefore, with the realities that lie behind the Government's attrition policy. Nevertheless the Board is concerned with a number of problems to which this federal program now gives rise as a matter of national policy and action as well as with the provincial responsibility in carrying out certain vital aspects of a national policy. The Board's concerns may be stated as follows:

## 1            **The Attrition Policy**

There is no doubt in the Board's view that a phasing out of PCBs, wherever used, is the necessary route to follow since any "command" to "cease and eliminate" would be unrealistic in the short run or even the medium term. The Government's policy as the Board understands it is to achieve elimination of PCBs from the Canadian environment through the following measures:

- a) the prohibition of any new instrumentalities -- transformers, capacitors, switchgear, heat exchangers, etc. -- from using PCBs as well as their manufacture, distribution or importation into Canada which is the purpose of Chlorobiphenyl Regulations No. 1 and the present amendments under consideration. Thus, when the amendments come into force, the effect will be to "freeze" existing PCB uses and to prohibit and prevent any new PCB facilities either as replacement or as starting up facilities.
- b) the Regulations will require that any refilling of existing PCB containers will come from alternative fluids that do not contain PCBs and are relatively non-toxic. This will, of course, require flushing-out technologies which also give rise to storage and waste disposal problems because the flushing fluids themselves will be contaminated by the presence of residual PCBs.
- c) the average life of transformers, for example, is assumed to be about forty years. But there is good reason to believe that well maintained transformers can continue to be in service for up to perhaps one hundred years. The attrition program assumes that as old transformers, switchgear, etc. are retired, the PCBs in them will be withdrawn, duly stored and eventually disposed of. Hence the importance of storage facilities and of waste disposal technologies, both for PCBs being replaced by alternate coolants and for PCBs that are drained out of transformers, etc., that are no longer in use.
- d) this attrition program assumes, therefore, that down the line at about forty years or so, the majority of existing electrical and related equipment using PCBs will have been replaced; and the important complementary assumption must be that there will be in place adequate and safe storage facilities as well as effective technical facilities for the current and continuing disposal of PCBs.

The Board is concerned that this program, as outlined above, is not one that promises a reasonably early resolution of the PCB problem in Canada. Indeed, given the long life of much of the electrical equipment using PCBs, and particularly transformers, it



may be argued that there will be some PCBs in Canada, perhaps in quite large amounts in well-maintained transformer systems, for up to one hundred years or thereabouts. Moreover, this program requires a careful inventory, a well-monitored system for the detection of deteriorating equipment, and also that the decision to retire such equipment not be left in the hands of the private sector alone but rather with some appropriate policing agency of Government in cooperation with industry.

Finally, "attrition" by the process of gradual retirement of used-up equipment is surrounded with such an uncertain time factor that, in the opinion of the Board, it affects the credibility of the PCB policy as a whole. Some other approach, therefore, would seem to be necessary both to reduce the time-scale for its own sake and to achieve a higher degree of public acceptance and general credibility for the program.

## **2           An Alternative to Attrition**

It seems to the Board that given the economics involved and in the absence of adequate storage and waste disposal facilities, an early PCB elimination policy, however desirable, remains impractical. Nevertheless, it is possible to devise a system of retirement that is more effective than "natural" attrition through awaiting the disposal of used-up equipment. In the Board's view the Government of Canada and the provinces concerned should consider a fixed percentage of all equipment using PCBs to be retired annually, e.g. five percent. This would provide very specific targets to all users; it would encourage the manufacture of replacement fluids and equipment and assure a market for such replacements in foreseeable volumes and capable of reasonable calculations; it would encourage all governments to step up the storage and waste disposal programs in association with industry; it would encourage industry to plan its retirement of equipment more systematically and in relation to existing storage and waste disposal facilities as these are developed and expanded; it would assure the public of a definite time span within which the use of PCBs in all equipment would be eliminated, e.g., twenty years; and, finally, it would encourage the creation of a systematic administration of the retirement program since a fixed timetable at fixed percentages would impose a degree of monitoring and policing, etc. that would be less stressful and more orderly, it seems, than that required to monitor a voluntary retirement system at the option of the owners. In this connection it is worth noting that in the absence of some such systematic administrative framework there might be a tendency for owners or users to over-extend the life of facilities or to abandon equipment. Indeed, no regulation at the moment seems to be present, federally or provincially, that prevents the dangers which such abandon-

ment poses through vandalizing or deterioration of non-maintained facilities leading to spills of PCBs as well as other undesirable results, e.g. the recent case of nine abandoned transformers, destroyed in Newfoundland with PCB spills in the adjacent ground areas. (See Part II for a discussion on "Abandonment").

The Board has made some very rough calculations as to the cost to industry of a twenty year program as recommended above. It is the Board's estimate that the cost of manufacturing and installing transformers and associated electrical equipment to replace present facilities over a twenty year period would amount to about twenty-five million dollars per year, totalling five hundred million dollars over a twenty year span. Similarly, a retrofill program with non-PCB fluids would pose an annual user cost of about ten million dollars per year over the twenty year period. Since transformers comprise about ninety percent of the equipment coming within Chlorobiphenyl Regulations No. 1 and the Government's PCB policy as a whole these estimates would require an additional ten percent to include the remaining forms of PCB use, e.g. electromagnets, heat exchangers, etc.

Given these figures, the Board does not believe that they represent a serious financial burden for industry within the framework of a twenty year retirement program.

### **3 Replacement Fluids**

The Board is interested in the evidence by the Dillon Company in their recent report (1) to the Department of the Environment to the effect that there are four classes of commercially available replacement fluids that are acceptable substitutes for PCBs. The Board understands that there may be problems of cost here, but if Government and industry are satisfied that one or more of these coolants can perform effectively as substitutes for PCBs, then the Board is of the opinion that the choice of one or more of these alternative fluids is likely to lead to a volume of production that would make their use competitive for industrial and other users. The Board believes that the Government of Canada should give a high priority, in cooperation with industry, to determining and agreeing upon acceptable replacement fluids for PCBs.

The Board also wishes to observe that the proposed program for replacement fluids provides an opportunity for governments to monitor leaks and spills because the replacement process would provide documentation for identifying a loss that in many cases could only have resulted from a leak or a spill.

#### 4            **Transportation Problems**

The Board is aware of the great public concern that is related to the transportation of hazardous wastes, a concern that is almost as significant as the public anxiety to be found in the waste storage and disposal questions. The very complex nature of the technical and jurisdictional issues surrounding transportation of PCBs, render it unrealistic that the Board should attempt to deal with this matter in any detail particularly in view of the attention now being paid to transportation of hazardous products and wastes in existing and proposed federal statutes and regulations. Similarly, provincial regulatory systems exist either parallel to, separate from, or under accords with, the Federal Government. Nevertheless the Board believes that there are a number of observations it should make in the hope that such comment may help to speed up the processes now under way for the better control of the transportation of PCBs. These are:

- a)    it would be urgent for the Government of Canada to enact as soon as possible legislation such as Bill C-25 (as it was known before lapsing because of the recent dissolution of Parliament) dealing with the transport of dangerous goods. The present "guidelines" for the transportation of hazardous materials now must await appropriate legislation to permit the proposed National Code to be converted from its status as guidelines to a regulatory and mandatory system.

The envisioned legislation should contain a provision enabling the listing of PCBs or other toxic chemicals, or any machinery, equipment or product containing PCBs or other toxic chemicals, or any substance contaminated by them (e.g. soil), as substances or equipment to which the regulations governing their transportation and handling may apply.

- b)    while special hazard is attached to PCBs, their transportation must be seen as part of the larger question involving all forms of hazardous products and wastes transported in quantity by freight trains, trucks and water-borne carriage systems. Nevertheless a number of specific observations may be made about PCBs themselves, both from the point of view of problems possibly unique to PCBs as well as from the aspect of public concern. These observations include the following:
  - (i)    transportation involves PCBs, or contaminated wastes, being taken from the industrial or commercial site where they are in use and transported to storage and disposal areas. Very specific rules are necessary for the handling of PCBs because of the need for employee safety as well as the ease with which the



fluids contaminate other materials and the external environment, should there be accidental spillages en route.

- (ii) routes should be established that provide the shortest line with the least risk between the place of utilization of PCBs and the storage or disposal site.
- (iii) similar care must be taken with respect to equipment containing PCBs where such equipment is to be used elsewhere or is transported for storage or for disposal.

- c) in view of the recent events involving the explosion of tank cars carrying hazardous materials at Mississauga, Ontario, and in view also of the public hearings now under way inquiring into these events, it would be inappropriate for the Board to make any comments arising out of that near disaster. The Board only wishes to observe the urgent need for mandatory rules and regulations that would govern all forms of transportation of hazardous materials and wastes and reflecting the necessary involvement of all levels of government, as well as industry and transportation equipment manufacturers (tank cars, trucks, barges, freight vessels, etc). All of these regulatory systems should be contained within a single and readily understood Code, if possible.

## 5 **Storage, Waste Disposal Facilities and Public Opinion**

Central to any program for the retirement and replacement of equipment using PCBs is the presence of adequate storage facilities for PCBs or for flushing residues contaminated by PCBs and similarly, facilities for the eventual disposal of PCBs so stored, as a hazardous waste. Canadian (2) and Swedish (3) studies have demonstrated that PCBs can effectively be destroyed by high temperatures. The Canadian study carried out in an industrial cement kiln, found that 99.986% of PCBs are destroyed. The Swedish study also carried out in a cement kiln showed 99.99998% destruction of PCBs. Laboratory experiments have shown that PCBs can also be destroyed by chemical reaction (4) but further research is needed on the effectiveness and costs of chemical methods before this approach can be recommended for the practical disposal of PCB wastes. Other methods for their destruction are currently being investigated.

Serious problems now exist because governments are confronted with public fears and resistance when a neighbourhood is chosen as a site on which to build a hazardous waste storage and/or disposal facility. Most of the discussion about PCBs and their storage and disposal should be seen in the context of the more general problem of

disposing of hazardous waste of all kinds, since scale and costs will dictate the scope of an economic facility. The difficulties that governments and industry are having with the storage and disposal question may be resolved, in the Board's view, only if and when the public can be satisfied that a specific storage and disposal site is selected for its special features, providing minimum risks to nearby populations and maximum protection from transportation, storage or disposal accidents. The extensive studies done already on siting problems by the Dillon Company, for the Province of Ontario in its October 1979 Report (5), demonstrate the complexity of the issue and the care that should be taken (on the basis of that report and other studies) in any site selection program. A similar program of studies is now underway in Alberta and a task force report is expected on the subject early in 1980.

It would be presumptuous, therefore, for this Board to make any further comment on the storage question, save to point out that without adequate storage facilities (and effective waste disposal procedures), a systematic phasing out of PCBs is bound to be difficult or unlikely because of the dependence on safe storage for fluids being prepared or held for eventual disposal.

Similarly, the technology for destroying PCBs seems to be increasingly well understood and the instrument of choice, for the present, appears to be incineration at high temperature. Not one such facility exists in Canada at this time and only one in the United States, a private sector incinerating device, owned and operated by the General Electric Company in New England for its own disposal needs. It is remarkable that despite so much governmental and public knowledge about the need for disposal facilities, and the success that incineration assures for PCBs and like hazardous wastes, no major facilities exist in Canada or indeed, at the moment, in the United States. Under existing U.S. Environmental Protection Agency regulations it is no longer possible for Canada to ship its PCB wastes across the boundary into the United States for disposal, and in the absence of an acceptable waste disposal program in Canada, the retirement or phasing out of equipment using PCBs becomes difficult and indeed problematical. Hence the high priority that must be given to the storage and disposal question. Seven or eight illustrations were given to the Board about on-going research in the Paperworkers Union brief and the Board is aware of substantial literature describing favourably a number of waste disposal programs for PCBs at several locations in Western Europe. The problem appears not to be a technical one, but a socio-political one. In Canada, the division of governmental authority tends to give a high degree of optional power to local govern-

ments, down to the municipal level, and these regional publics, e.g., Mississauga, are often unwilling to accept a storage or a disposal facility within their territorial boundaries. This is but one instance where local concern over environmental contamination by PCBs may be having the result of delaying the development of facilities for their disposal and elimination.

There are indeed great difficulties involved in persuading the public that safe storage procedures are known and available, and that the technology for their destruction by high temperature incineration, as in cement kilns, is also well known. Nevertheless it remains true that public opinion in Canada and the United States remains unconvinced that the combination of transportation hazards, storage risks and disposal uncertainties do not constitute a major environmental threat to any community that is presented with a proposal for a storage facility or a waste disposal unit within its boundaries. The Board has been advised that although a number of research projects are under way, including chemical as well as plasma arc destruction procedures, none of these are far enough advanced to be employed at this time. Given the volume of PCBs as well as PCB-contaminated fluids resulting from scouring procedures to remove residual PCBs, it is urgent that storage and waste disposal facilities be developed as quickly as possible. The Board recommends that federal and provincial governments in cooperation with each other, if they are convinced that high temperature incineration is the procedure of choice today, should find a site which, to satisfy public concern, should preferably be distant from a populated residential community, and begin the public education process required to make that siting convincing and acceptable. The evidence suggests that it is uneconomic to proceed with such a high temperature facility unless it is part of an existing industrialized process and/or to be employed for other wastes as well. Therefore location of such a facility at the present time seems to be restricted to plants with equipment suitable for this kind of incineration. An alternative for the future might be a government subsidized facility.

Given the volume of PCBs and contaminated scouring fluids that are involved over the next twenty years or more in the United States and Canada it would seem unnecessary to stress that federal-provincial and Canada-United States cooperation is essential to developing a common and early approach to transportation, storage and waste disposal of PCBs and similar wastes. Public education therefore about these programs is vital if there is to be community confidence in this continuing process of moving, storing and disposing of PCBs and other toxic and contaminated materials.



The Board has had brought to its attention the views of Mr. E. Czerkawski on page 24 of the Dillon Company Report on PCB substitutes (1), to the effect that through the use of Neoprene, etc. PCBs can be selectively absorbed and thus may be compressed into a solid form which can then be stored in less space than is required by liquid wastes and can be burned readily in high temperature kilns. The Board believes that such a compression procedure might add an important storage technique to the present limited options of available facilities. The Board does not feel itself competent to pass judgement on all the proposals made by the Dillon Company Report, but believes that comprehensive scientific studies now and in the immediate future should be pursued and be made available to the public to determine the feasibility of the various processes and materials discussed and their cost-benefit ratios.

## **6 Local Health Problems and Environmental Effects**

While the terms of reference of this Board of Review stem directly from the nature of the Regulations being studied by the Board, Section 6(2) of the Environmental Contaminants Act requires the Board to bring to the attention of Government "the nature and extent of the danger" that in the Board's view should be identified -- in relation to the specific Regulations being studied. Of course, the Board's mandate must necessarily give the proposed Regulations, and the policy surrounding it, a first priority. Nevertheless, in view of the brief submitted by the Canadian Paperworkers Union, the Board believes that it is desirable that the Government of Canada should take into account the effect of management of PCBs on the health of federal workers in contact with equipment containing PCB fluids. For non-federal employees the provinces have the primary jurisdiction in this area -- although joint federal-provincial occupational health studies are conducted as necessary. Governments also must be aware of the potential hazards posed by PCB-type equipment to the environment within the plant, or mine, or power-station, etc. concerned, and to the surrounding community environment to the extent that the health of the public and the well-being of the water-land-air complex of the region may be affected. The Board necessarily must take note of these possible dangers and bring them to the attention of governments, with the recommendation that joint studies and regulatory procedures be undertaken as quickly and as effectively as possible.

## **7 Guidelines and Regulations -- Federal and Provincial**

While the Board is satisfied that the proposed Chlorobiphenyl Regulations No. 1 amendments are a valuable beginning, the Board is equally satisfied that only by

having national rules can the entire unity of the program to eliminate PCBs from Canadian use, in the Canadian environment, be achieved. While all governments seem to have concluded that manufacture, use, transportation, imports and exports, etc. are within federal jurisdiction, (although sale and resale may also be within federal authority), with storage and disposal within provincial jurisdiction, the Board is not satisfied that this is the end of the story. For the effect of such a division is to leave the question of storage and disposal, its monitoring and policing to local governments (provincial, regional and municipal), and there may be great variations between provinces, regions, cities and towns in their approach to the difficult issues involved. Nevertheless, due respect must be paid to political realities and to accepted constitutional notions however debatable some of these may be from the aspect of their practical effects on a unified, Canadian PCB policy. The Board would therefore recommend that the Government of Canada consider replacing present guidelines, wherever relevant and practical, which now express the Federal Government's views on storage and all other aspects of the PCB problem, with uniform rules and regulations, jointly agreed upon by the federal and provincial governments concerned, and enacted as Federal Regulations. The effect of this recommendation would result in a national system of rules but delegating to the provinces the administration and implementation of those regulations dealing with storage and the disposal of PCB wastes. This delegation would be similar in character to that already practiced under the Fisheries Act. It would assure national rules, hopefully concurred in by the provinces after negotiation, but equally it would assure the effectiveness of provincial governments in the areas where they can serve best because they are so close to the site of industrial and other operations as the immediate authority. Canada's international obligations under the Boundary Waters Treaty of 1909 and the Great Lakes Water Quality Agreements of 1972 and 1978 require Canada to carry out programs which directly and indirectly oblige it to bear in mind duties with respect to water quality entering the United States from Canada or in shared boundary waters. This legal obligation provides an additional reason for the evolution of unified Canadian federal and provincial policies aimed at a reduction and elimination of PCBs.

## **8 The Philosophy of the Legislation**

The Environmental Contaminants Act may be regarded as legislation designed essentially to prohibit various forms of individual or corporate behaviour. The language of the Act, as the Board views it, is very largely prohibitory rather than managerial. By this the Board understands officials to mean that they do not have authority under the present

legislation with its present language and viewpoint, to order courses of industrial or commercial action of a constructive or preventive nature. Rather the various prohibitive and punitive sections of the Act provide for the cessation of certain manufacturing, industrial, commercial or distributive activities stated in the Act itself or in Regulations thereunder. And while it may be possible to attach affirmative conditions requiring certain forms of behaviour as part of a penalty or of a prohibitive order, this does not express the central character of the legislation and it would, in any case, be a very cumbersome procedure to implement programs of a positive nature and requiring specific managerial activities by manufacturers, distributors, licencees, etc.

Given the experience with the Act so far -- it has only been in force since 1976 and the PCB regulatory system is the first order of its kind under the Act -- it may be premature here to attempt to outline in detail the managerial or affirmative powers which may be necessary if the systematic elimination of the entry of toxic substances and contaminants into the environment is to be achieved over time and policed effectively. Nevertheless, it is not too early to recommend in principle, the urgent need for the Government to consider a changed legislative philosophy which could lead to amendments, enabling regulations to be put in force that would require of individuals and industry, etc. certain positive steps to be taken as part of a program for the elimination and control of given toxic substances and contaminants and to promote the use, wherever possible, of substitutes for them. It is clear from the Board's study of the present PCB program that many activities by industry or others continue to have a negative impact on the program to eliminate PCBs. Their cessation or modification often cannot now be demanded because of the nature of the Environmental Contaminants Act. This delays the process of the disappearance of PCBs from the Canadian environment. Illustrations of this problem will appear in the Board's discussion of the proposed amendments in Part II of this Report. The Board therefore recommends an early examination by Government of the philosophy of the Act in order to bring into operation a legislative instrument which will empower Government to deal -- wherever possible in cooperation with industry -- more effectively through positive action programs which probably are not possible under the present Act.

The Board is aware that most or all of the above proposals do not alter any fundamental policy already adopted since all governments clearly are determined to eliminate PCBs from Canadian use and to destroy what remains, as acceptable substitutes come into place. Nevertheless the Board believes that the above suggestions provide a more systematic approach to the attrition-elimination program, to the replacement of



fluids and to the regulation and management of the storage and waste disposal question, perhaps the most difficult of all the regulatory challenges posed by the general policy to rid Canada of PCBs.

## **9 The Development of Civil Liability, Law and Policy**

The Board has become aware of the continuing and increasing debate in society on the question of the desirable approach to the burdens that must fall upon a wrongdoer violating the provisions of an Act or the programs envisaged by legislation.

The penalties for offences under this Act will be discussed in Part II. The following comments have to do instead with private law remedies and liability policy in general. There are two interesting issues here but the Board does not believe it desirable to do more than to refer briefly to them at this time. There is the well known question of the distinction to be drawn in the law between "negligence" or "negligent behaviour", and the higher degree of culpability that flows from what the lawyers call "wilful or gross misconduct". While the Board has not had any professional studies done for it about the extent to which these concepts apply to the environmental protection field, nevertheless it is quite clear that different levels of penalty should and must attach to "wilful or gross misconduct" as distinct from that degree of carelessness which lawyers would describe as "negligence" in the general sense of the term -- a neglect to do what a reasonable man would have done under the circumstances. Modern legislation in the environmental field must finally face the issue of whether to place the full, primary or only a shared onus on him who pollutes or endangers the community. Much of the behaviour involved here often is accidental, but sometimes close to being "wilful" or "gross" through the sheer indifference expressed in behaviour that takes little or no account of the consequences. In any case, public opinion would expect modern law to cast the net very wide for the typical negligent polluter but also to be mindful of the degree of "wilful" or "gross" behaviour which demands more severe penalties in both civil and criminal law.

Even more severe standards in modern law controlling personal, commercial or industrial behaviour, can be found in the notions of "absolute liability" or "strict liability". Again this is not the place for a dissertation on these classical concepts in the Law of Torts. But it is useful for this Report to comment on the extent to which the manufacturer, distributor or user of hazardous materials or their wastes may be held accountable. Increasingly strong views are held now that anyone in the business of creating a hazardous chemical, e.g. a manufacturer, that is potentially injurious, or even possibly lethal to man and nature, should be held liable whether his behaviour was

negligent or not. Indeed the doctrine of "absolute liability" would hold him liable however much care he took and thus the manufacturer - processor - distributor chain, etc. become virtual insurers to anyone harmed or injured by the product. Less stringent burdens may be involved in the related concept of "strict liability" and even here, the absence of negligence will not save the manufacturer, distributor, etc. but he may exculpate himself partially by demonstrating that all reasonable efforts were made to prevent the injury involved.

It is a matter of high social policy to determine which of these standards should apply in a highly complex industrial-chemical society and particularly to the area of toxic chemicals and contaminants to which family of perils PCBs belong.

It is quite clear that in "environmentally sensitive areas" (see Part II, page 45 for definition) special care must be taken by manufacturers and users. These areas include public health generally, food stuffs, and segments of the natural environment, e.g. freshwater sources. It becomes a very sophisticated effort, therefore, to relate degrees of culpability ranging from simple negligence to absolute liability to these "environmentally sensitive areas" requiring as they do the special attention of any environmental protection system. Legislation and regulations should be designed therefore to take into account the various classes of sensitive subject matter while at the same time relating the degrees of culpability not only to these areas of special sensitivity but also to the public generally and the environment as a whole. In the end, the Board wishes to observe that increasingly the burden of responsibility may be shifting to those who manufacture or introduce the toxic substance or contaminant into the environment and that the degree of liability must be so weighted as to ensure the maximum of prudent behaviour. At the same time Canada is a free society with a market economy and government intervention necessarily must also be aware of the realities of the economic costs on the one hand and the concept (in criminal law at least) of innocence until guilt is proven (more or less) on the other, as well as the general scope of regulatory systems acceptable to Canadian society.

## **10 A National Advisory Council on Environmental Quality**

It is the Board's view, after considering the breadth and complexity of the legislation dealing with toxic substances and contaminants -- viewed through the model presented by the immediate effort to eliminate PCBs -- that questions of substance, of jurisdiction and of public acceptance all are involved. New social instruments therefore may be required to deal with the formulation of sound and acceptable views for

implementation and enforcement by Government. It is the Board's opinion that a group of well-informed and aware citizens from the academic, business, agricultural, labour and environmental constituencies could perform a very useful function in an advisory capacity. The Board envisages the possible creation of a National Advisory Council on Environmental Quality to be responsible to the Minister of the Environment or jointly to him and the Minister of National Health and Welfare. The purpose of the Council would be to act as a sounding board for governmental and private ideas and as a source of creative suggestions for research or administrative programs in aid of community values as well as the policies adopted or to be developed by Government in the environmental protection area and related fields. Senior members of the Government Departments concerned should be members of the Council in order to provide close links that would serve the Council's informational needs and interests while providing the Government itself with a continuous insight into the Council's thinking. The Council thus would be certain that its value as an instrument does not develop without the technical and policy information which officials would bring by their presence. But a strong majority of non-officials from the general community would ensure the Council's independence as well as its scope for imaginative initiatives. It would also assure for it a "watchdog" role through keeping an eye on the effectiveness of existing programs. Perhaps as important as any feature of such a Council and its work would be an attempt to provide a coordinated view of the environmental protection field irrespective of jurisdiction, and thus bring a heightened national and regional awareness that crosses the boundaries of constitutional limitations -- as does nature itself. Not only would this approach to the Council help to satisfy the need to maintain an integrated view of the environmental protection field as a whole, but it should add immeasurably to public knowledge and public confidence, and therefore to government credibility, since the Council would be accountable to its own conscience as an independent advisory instrument -- knowledgeable and sensitive, but linked to the realism of costs and constitution.

The Board is aware of the existence of the Canadian Environmental Advisory Council created by Cabinet Order in 1972 and that this Council has been functioning in an advisory capacity to the Minister of the Environment since that time. While the scope of that Council's terms of reference are very broad the present proposal outlined above is intended to embrace a concept somewhat more diverse in its application -- particularly the ability of the proposed new Council to review existing policies and machinery from time to time as it may deem necessary. In addition, it would provide a mechanism for



environmental impact studies if and where existing departmental machinery might not be adequate or present at all. In this perspective the 1972 Council would merge with the proposed National Advisory Council.

## **PART II**

### **A. PROPOSED AMENDMENT TO CHLOROBIPHENYL REGULATIONS NO. 1**

The Chlorobiphenyl Regulations No. 1, as published in the Canada Gazette, Part II, Vol. III, No. 18, pages 4228 - 4230 on September 28, 1977, are shown in Appendix A-4. The proposed amendment, as published in the Canada Gazette, Part I, pages 7117 - 7118, on December 2, 1978, and which was the subject of the Board of Review's consideration, is shown in Appendix A-5.

During its deliberations the Board was asked to consider a further draft of the proposed amendment, dated January 31, 1980, and shown in Appendix A-6. This Report already has explained that in order to facilitate the process of approval and promulgation of the proposed Regulation the Board after its hearing on December 10, 1979, decided that it would be appropriate to forward its approval to the Minister by way of an Interim Report signed by all Members of the Board and it so did on January 4, 1980 (Appendix A-7). The effect of this procedure was to permit the process of proceeding with the formalities of bringing the amended Regulation into force without having to wait for the full Report itself.

However, before promulgation took place on the basis of the January 4, 1980, letter or before any further formal steps were undertaken, by the Minister, the changes to the amendments of January 31, 1980, and referred to above, were presented to the Board for consideration. The Board held a special session with officials of the Department of the Environment and the Department of National Health and Welfare to entertain this submission for these changes (to be described below) and this submission and the discussion which followed were duly recorded. A transcript of the proceedings together with the Department's submission with respect to these changes were transmitted to all witnesses and other interested parties who had testified at the public hearings on December 10, 1979, or who had indicated an interest in the proceedings. The witnesses were invited to comment on the proceedings, as well as on the views of the Board with respect to these changes, within twenty days of the date of the forwarding of the transcript.

The Board believed that this procedure would assure that all those who took part in the proceedings of December 10, 1979, would have the opportunity to know and

express their views about the changes submitted by the Government on January 31, 1980, and discussed fully with officials that day as recorded in the transcript.

This Report therefore incorporates these approved changes to the amendments prior to the comments that may be received from interested persons and witnesses to whom the January 31, 1980, submission and transcript were sent. In its concluding observations on pages 51-53 and 55-56 of the transcript (Appendix G) the Board sets out its views on the substance and procedures arising out of the January 31, 1980, submission and discussions and it will be observed that the Board has indicated that it will file a Supplementary Report with the Minister should this prove to be necessary after all comments are received.

As explained in the Introduction to the Report the Board, after consideration, communicated its decision and approval of the changes to the amendments in letters to the Minister of the Environment, The Honorable John Fraser, P.C., M.P., and the Minister of National Health and Welfare, The Honorable David Crombie, P.C., M.P., on February 2, 1980, (Appendix A-8), and to Mr. R.M. Robinson, Assistant Deputy Minister, Environmental Protection Service, Environment Canada, whose letter of January 31, 1980, (Appendix A-6), to the Board had initiated the process of considering these changes.

The letter from the Government of Canada of January 31, 1980, contained certain changes from the published version of the amendments of December 2, 1978, namely:

- a) introduction of definition of "electrical transformer";
- b) replacement of the words "associated switchgear" in Section 3(a)(i), 3(c), 3(d), 3(e) and 3(f) by the words "associated electrical equipment";
- c) replacement of the date "January 1, 1979" in Sections 3(a), 3(b), 3(d), 3(e) and 3(f) by the date "July 1, 1980";
- d) replacement of the date "March 1, 1977" in Section 3(a)(ii) by the date "September 1, 1977"; and,
- e) introduction of the word "electromagnets" in Section 3(e) and the word "electromagnet" in Section 3(f).

The immediate responsibility of the Board was to determine whether the draft of the proposed amendments of January 31, 1980, differed materially from that published in the Canada Gazette and which had been the subject of the Boards hearings.

On enquiry of Environment Canada officials, the Board was informed that the latest changes were requested on the following grounds:



- a) the introduction of the definition of "electrical transformer" is intended to permit the continued use and servicing of transformer/rectifier assemblies installed in a common enclosure. Since the use and servicing of such equipment could be considered as prohibited under the proposed amendment as published on December 2, 1978, and since the equipment shares a common dielectric (PCBs), and it was not the Government's intention to prohibit the use and servicing of such equipment, the newly introduced definition is intended to clarify the Government's original intention. In the Board's opinion the definition improves on the understanding of the application of the Order;
- b) the replacement of the words "associated switchgear" by the words "associated electrical equipment" is intended to more adequately describe the type of associated transformer equipment which may be used and serviced. In the Board's opinion, the change does not constitute an unacceptable variation in the proposed amendment as published;
- c) the change of the date "January 1, 1979" to "July 1, 1980" is necessitated by the delay resulting from the receipt of notices of objection and the consequent appointment of the Board of Review and the need to hold public hearings;
- d) the change of the date "March 1, 1977" to "September 1, 1977" was made as the result of the Board's enquiry and of the Board pointing out that the proposed amendment as published could be interpreted as not applying to heat transfer equipment, hydraulic equipment, electromagnets not used in the food and animal feed industry, and vapour diffusion pumps manufactured or imported into Canada between March 1, 1977, and September 1, 1977. The change permits application of the proposed regulation to such equipment. No material change results from this alteration in the dates;
- e) omission of the words "electromagnets" from Section 3(e) and "electromagnet" from Section 3(f) of the proposed amendment as published results in the prohibition of the use of PCBs in the servicing and maintenance of electromagnets which themselves are permitted by Section 3(a)(ii) in industries other than the food and animal feed industries. The Government considers that such electromagnets should be treated no differently than electrical transformers. On enquiry the Board was informed that such electromagnets are used over conveyors to remove iron impurities in the coal-mining and other industries. The use and servicing of such electromagnets requires the periodic filtering of the PCB dielectric fluid to remove sludge and moisture, and

the return of the filtered PCB to the electromagnet. Without such a procedure electromagnets would present hazards which might necessitate their premature retirement. Since it was not the Government's intention to prohibit the use and servicing of such electromagnets, and since they are sealed units, the Board considers that there will be less risk to the environment if these suggested changes are adopted. The use of PCBs as new filling and as make-up fluid in the servicing and maintenance of all electromagnets is prohibited under Section (f).

After due deliberation, the Board considers that the changes in the proposed amendments which were transmitted to the Board on January 31, 1980, clarify the coverage provided by the proposed amendments and do not, in the Board's opinion, result in a material extension of things permitted or prohibited under the proposed amendments as published. The Board therefore supports the incorporation of the changes into the proposed amendments.

For its review of the proposed amendments, as modified by the transmittal of January 31, 1980, the Board is satisfied that the use of PCBs in the operation of any machinery or equipment, or its presence in any product, after July 1, 1980, is effectively banned, with the following exceptions: PCBs may continue to be used in the operation of electrical capacitors, electromagnets, transformers and their associated electrical equipment manufactured or imported prior to July 1, 1980. However, the use of electromagnets containing PCBs in the food and animal feed industries is banned after July 1, 1980. For electromagnets in other industries and for transformers and their associated electrical equipment in operation before that date, PCBs may not be used as new filling or as make-up fluid after July 1, 1980.

The Board is satisfied that satisfactory alternate dielectric fluids are available and may be used effectively either as new filling or, alternatively, as make-up fluid to the point where they may constitute up to approximately fifty percent of the total dielectric fluid present in the original equipment. The Board realizes that depletion of the PCB content below fifty percent of the total volume may require that equipment located outdoors be taken out of service because of the danger of freezing at that mixture level. The residual PCBs may not be used as make-up fluid in electromagnets or transformers or their associated electrical equipment and will therefore have to be maintained in storage and eventually disposed of. In the Board's opinion the salvage and re-use of PCBs are effectively prohibited under Sections 3(e) and 3(f) of the proposed amendments as modified by the transmittal of January 31, 1980.

The Board recognizes that the intent of the above exceptions is to allow the continued use of PCBs in certain equipment where it is presently enclosed and presents little risk of release to the environment. Well maintained, enclosed type transformers are, in the Board's view, a safe and reliable interim storage system since servicing and maintenance ensures that leaks, spills and explosions will be prevented and quickly detected under optimum surveillance or monitoring conditions. If the above-mentioned uses were to be prohibited now, problems would immediately arise as to the safe disposal of the PCBs contained in such equipment.

In the opinion of the Board, the proposed amendments to Chlorobiphenyl Regulations No. 1 dealing with polychlorinated biphenyls, as set out in the Canada Gazette, Part I, dated December 2, 1978, and modified by the transmittal of January 31, 1980, are a statement of rules governing the future manufacture, distribution and use of instrumentalities using PCBs which the Board can fully support.

However, the Board has general comments and recommendations to make about the general field to which the amendments refer.

The use of PCBs in the operation of electromagnets in the food and animal feed industries is prohibited after July 1, 1980, by Section 3(b) of the January 31, 1980, version of the proposed amendments. However, the use of PCBs in the operation of any heat transfer equipment, hydraulic equipment or vapour diffusion pumps which were in use prior to September 1, 1977, including the food and animal feed industries, is permitted under Section 3(a)(ii). While officials of Environment Canada have assured the Board of their confidence that no such equipment is presently being used in the food or animal feed industries in Canada, the Board recommends that in the interest of anticipating any possible loopholes the use of any equipment or machinery -- not only electromagnets -- containing PCBs be prohibited in the production or processing of food, milk, animal feed and water at as early a date as possible.

The Board further recommends that when a practical and effective system for the destruction of PCBs becomes operational the continued use of all equipment containing PCBs be phased out in a systematic manner as described in Part I on page 16.

## **B. THE ENVIRONMENTAL CONTAMINANTS ACT AND SOME OF ITS PROBLEMS**

In its consideration of the proposed amendments to the Chlorobiphenyl Regulations No. 1 the Board, of necessity, examined the enabling legislation, viz.: the



Environmental Contaminants Act. The comments of the Board on the philosophy governing the Act, and the control of toxic substances generally, are presented in Part I of this Report. In addition, the Board has further comments and recommendations of a specific nature regarding the Act and the powers which it considers necessary and appropriate for the effective control of environmental contaminants generally. (It should be noted that the Board has not examined the control of pesticides and like products which also may pose serious threats to the environment since these subjects were not within the mandate of the PCB Board of Review).

## **1 Environmentally Sensitive Areas**

The Board has been apprised of many problems which may, and do, arise as the result of inter-governmental and inter-departmental subdivisions of authority in the areas of public health, food and animal feed production, agricultural land use, and general environmental protection. The Board has given consideration therefore to the advantages of establishing a special category of the environment which, because of its particular sensitivity to contamination by toxic chemicals, presents a greater-than-normal local hazard, e.g. food, water, arable land and public health.

For such segments of the environment the Board proposes the term "environmentally sensitive areas". The specification of such a category in the Environmental Contaminants Act would enable the drafting of specific legislation, including regulations, appropriate to the needs in such segments of the environment. The Board is concerned, for example, that there should be control over the siting or expansion of food production facilities and water treatment plants in proximity to installations where toxic or other hazardous substances are manufactured, processed, used or stored. Such control should include the prior submission of siting and construction plans for Ministerial approval. In addition, more stringent requirements such as lower levels of toxic releases, or special conditions for maintenance and operation to forestall and prevent releases, or restriction on the location of a plant or plants, could be required and justified on the basis of the potential for harm posed by proximity to an "environmentally sensitive area". The Board recommends that early and careful consideration be given to the benefits of defining and regulating "environmentally sensitive areas" under the Environmental Contaminants Act.

## **2 Release of Contaminants to the Environment**

With regard to Section 8(1) of the Environmental Contaminants Act, it appears to the Board that there is a difference in meaning between the English and French

versions, viz.: in the English version the adjective "wilfully" appears to apply to the word "release" but not to apply to the next phrase "or permit the release of", whereas in the French version the adjective "délibérément" appears to apply both to the words "rejeter" and to the following phrase "ou permettre que soit rejetée".

In the Board's opinion a comparison between the French and English versions suggest that by placing the word "délibérément" at the beginning of the Section in contrast with the word "wilfully" before the verb "release" in the English version, the French version may be interpreted as a weaker provision than the English version. There are therefore two questions the Board desires to raise for consideration: was Parliament aware of the distinction since it must be assumed that the English and French versions were to be the same. The second and more important question goes to the principle of whether Parliament intended to create a broader or narrower concept of responsibility since in the absence of words such as "wilfully", knowingly", etc. an offence is absolute when the act is done while by contrast the word "wilfully" places an onus on the enforcement authority to prove some intentional element in the mind and behaviour of the actor. The Board therefore recommends that consideration be given to amending Section 8(1) to convey the same intent both in the English and the French versions.

The Board is reluctant to express its views on this broad area of social and legal policy since there may be situations in which the good faith or intention of the pollutor is or should be a factor to be considered. At the same time, the Board is aware that the enforcement process is made much more difficult for the administering authority if it must prove "intent" as part of the offence. The Board believes it wise to leave this debate for the continuing examination of government at this time and confines its comment on this large issue to the probable need of weighting future legislation in favour of the enforcement process while not forgetting the reasonable requirements of fair treatment in the relations of government to the public.

The Board further recommends that the Act be amended to require that any release of a scheduled substance to the environment in a quantity or concentration in excess of that specified in the regulations, or under conditions specified in the regulations, shall be reported to the Minister or his designated agent within a stipulated period of time by any person engaged in any use of a scheduled substance or in the transportation of such substances or of equipment or receptacles containing such substances. With regard to the "designated agent" mentioned above, if acceptable constitutionally and administratively, consideration should be given to the possible advantages of designating

provincial governments as agents for the purpose of this Section or other Sections of the Environmental Contaminants Act.

Considering the problem of releases, and having established above the concept of "environmentally sensitive areas", the Board is particularly concerned with the protection of milk, food and water used for human or domestic animal consumption. The Board therefore strongly recommends that the Government give consideration to means whereby lower limits may be set governing the release of toxic substances in, or in proximity to, installations where milk, food, water or animal feed is produced, processed, stored or used.

The Board further recommends that there be a mandatory requirement to immediately report any such releases to the Minister or his agent.

### **3           Transfer of Ownership**

Since ownership and control of instrumentalities as equipment using or containing PCBs is the point at which responsibility can be fixed for purposes of this legislation, the Board in examining the offences as set out in Section 8 of the Act is concerned with the extent to which that Section adequately deals with the problem of transfers without sale, gifts and plain abandonment.

For example, it is possible that the language of Sections 8(2) and 8(3) of the Environmental Contaminants Act are limited in their application as presently written. It would appear that the intent of these Sections is to forbid the importation, manufacturing, processing, sale and use of a scheduled substance except when such substance is adventitiously present in quantities or concentrations not greater than those consistent with "good manufacturing practice". Section 8(4) appears to place a similar restriction on the importation, manufacture, processing and sale of a product that contains a scheduled substance in quantities or concentrations exceeding those specified in the regulations.

In the opinion of the Board there is a question as to whether Sections 8(2) and 8(4) specifically achieve this need to fix responsibility in the case of transfers, gifts or any acts not amounting to a sale as well as to plain abandonment.

The Board recommends that Section 8 be amended to ensure the fixing of responsibility on any possessor or user of a scheduled substance or equipment containing a scheduled substance however that equipment or substance may have come into his possession. Similarly, the Board would recommend that the Government consider imposing some degree of duty on the transfer of such equipment or scheduled substance



that would limit or prohibit the freedom to transfer with the intention of circumventing the prohibitions of this Act.

#### **4 Export**

The Board notes that the Environmental Contaminants Act contains no prohibition on the export of PCBs or other toxic substances, or of machinery, equipment or products that contain toxic substances. The Board is of the opinion that consideration should be given to ensuring that the Environmental Contaminants Act or other legislation prohibit such export, as well as their transport across international boundaries whether sale or transfer of ownership is involved or not -- except for transportation designed to implement an agreed upon storage or disposal arrangement abroad.

#### **5 Control of Products Containing PCBs**

From its public hearings and from consultations with departmental officials, the Board was apprised of the fact that PCBs may occur adventitiously in products as the result of chemical reactions which occur during manufacture of chlorinated hydrocarbon substances and indeed this is contemplated by the provisions of Section 8(3). Their presence, while not intended, may often be suspected from a knowledge of organic chemistry. The hazard to human health and the potential for environmental contamination posed by the adventitious presence of PCBs in such substances depends largely on the physical characteristics of the manufactured products, the amount of product manufactured, the concentration of PCBs in the product, and the conditions of its storage, distribution and use.

The Board realizes that there is no certain way of foreseeing all instances of such contamination of products, and that their discovery depends upon awareness on the part of chemical scientists in industry, universities and government of the possibility of such inadvertent contamination, and on voluntary efforts to explore such possibilities and to bring the results of any investigation to the attention of the proper authorities.

The Board is informed that Environment Canada is aware of the problem posed by the adventitious presence of PCBs in products, and that it is currently drafting regulations in this area under Section 8(4) of the Environmental Contaminants Act. The Board considers that control over product contamination would be enhanced if the Act were amended to enable a regulation requiring the reporting upon discovery by an importer, manufacturer, processor or owner of the presence in a product of PCBs exceeding the concentration specified in the regulation. The reporting of such other

information concerning the quantity of the product, its storage, and its proposed distribution as the Department may require in order to assess the potential hazard would be equally desirable.

The Board recommends that all other agencies, federal and provincial, involved in health protection activities should coordinate their efforts, e.g. through the Department of National Health and Welfare. This would assure a unified approach to the potential presence of PCBs in the products which may now, adventitiously, contain them. This approach should also have as its objective information exchanges, reporting and, most important, research.

The Board also is concerned with the scope of the important phrase in Section 8(3) "good manufacturing practice". It is evident that such a standard is the very least that society should impose upon those engaged in manufacturing, processing, etc. where the product may adventitiously contain PCBs. The Board believes, however, that it would be desirable to add a further criterion to guide the manufacturing and commercial community, namely, the phrase "and consistent with the lowest possible concentration". The combination of the two standards the Board suggests might encourage greater foresight and caution in the use of substances that are potentially hazardous at certain levels of concentrations.

## **6 Inspection**

Section 10(1) of the Environment Contaminants Act limits the inspection of premises to those instances where the inspector has reason to believe that a provision of the Act has been contravened. Such limitation appears to be in accordance with the prohibitory nature of the Act, and would not appear to enable use of inspection services for a constructive, preventative approach to the control of PCBs or other toxic chemicals. For example, it would not appear legally possible at present to require measures to be taken to ensure protective containment arrangements for contaminants, as distinct from merely prohibiting their release.

While the Board recognizes the need for opportunities on occasion to be given to properly designated officials to enter upon premises not only to see if an offence is being committed, but also on the basis of a broader legislative mandate to encourage better planning and pollution control, the Board recognizes that there is a serious dilemma here in giving too wide a mandate to such an inspection force. The Board therefore would recommend that if a broader management policy -- as against simple prohibition -- emerges as the legislative philosophy of this Act (see Part I page 29) the necessary powers

will have to be given to inspectors for them to execute the objectives of the legislation and these powers would include rights of entry to observe and comment on constructive and preventative measures. Nevertheless, the Board is aware of the caution that must be exercised in any such grant of inspection authority.

## **7 Inventory of PCB-Containing Equipment**

The Board notes that regulations requiring the keeping of records by anyone importing, manufacturing or processing scheduled substances can be enacted under Section 18(i) of the Environmental Contaminants Act. The Board also notes the omission of "commercial use" of PCBs in this Subsection. Furthermore in the opinion of the Board this Section does not apply to equipment, machinery or other devices such as capacitors, transformers, electromagnets, heat transfer equipment, etc. which may contain PCBs.

The Board recommends amendment of Section 18(i) of the Act:

- a) to include the "commercial use" of PCBs; and,
- b) to provide authority to regulate the keeping of records of;
  - (i) any equipment, machinery or other devices that may contain a scheduled substance in a quantity or concentration in excess of those specified in the regulations; and,
  - (ii) the operational use of such equipment.

The Board further recommends that an owner, importer, manufacturer, processor, etc. be required by regulation to maintain an inventory of all equipment, machinery or devices that contain a scheduled substance, and to provide Environment Canada with:

- a) a copy of the inventory or of any changes therein including the fluids used;
- b) the amount of the scheduled substance present in the said equipment, etc.;
- c) the age and condition of the equipment; and,
- d) information as to the location of the said equipment, etc. on the property and its proximity to an "environmentally sensitive area".

Environment Canada doubtless will establish and maintain its own inventory based on such information.

## **8 Labelling**

The Environmental Contaminants Act provides no authority to require warning labels on containers used for holding, handling or storing toxic chemicals, or of equipment,



machinery or devices in which toxic chemicals are present, or of products that contain a toxic substance. In contrast, warning labels will be required by regulation for the handling and transporting of dangerous goods and containers at such time as the Transport of Dangerous Goods Act is enacted.

The labelling of containers, equipment, machinery and products that contain toxic substances, in the Board's opinion, should be required in the interests of protecting employee and public health and the environment. The requirement would also assist those agencies responsible for the inspection and monitoring of the uses of toxic substances.

The Board recommends that consideration be given to the amendment of the Environmental Contaminants Act to provide authority for the making of regulations governing such labelling.

## **9 Abandonment of PCB-Containing Equipment**

During its examination of the proposed amendments of the Chlorobiphenyl Regulations No. 1 the Board was informed of the existence of a number of transformers which had been abandoned and later sabotaged, presumably for the salvage of their metal content, with resultant release of PCBs to the environment. After considering various measures that might be enacted to prevent the abandonment of equipment or machinery containing toxic substances, the Board recommends that consideration be given to amending the Act to include a definition of "abandonment" in Section 2 of the Act and the prohibition under Section 8 of the abandonment of any toxic substance or of any equipment, machinery, devices, containers or products containing a toxic substance in excess of the quantities or concentrations specified in the regulations. As an additional or alternative suggestion, the Board proposes that consideration be given to enacting under this or other enabling legislation regulations to require that an owner of such machinery or equipment pay an annual performance or maintenance premium on each piece of machinery or equipment containing a toxic substance, in relation to the size of the instrumentality, to be held by the Government of Canada and to be refunded to the owner upon his demonstrating to Environment Canada that the said machinery or equipment has been disposed of in a way acceptable to the Minister. Failure to do so would result in forfeiture of the premiums, which would then be applied against the costs to the Government or its agent of disposing of the said machinery or equipment. It is suggested that a limit be set on the total of the performance premiums paid by an owner in respect of each piece of said machinery or equipment somewhat in excess of, but consistent with, the costs entailed in its ultimate disposal.

In suggesting the above approach the Board points out that a responsible owner would suffer no penalty, while at the same time the public would not be burdened with the costs entailed in disposing of machinery or equipment abandoned by an owner.

## **10           Mandatory Reporting**

Section 4(6) of the Environmental Contaminants Act requires the reporting to the Minister of the importing or manufacture of a chemical compound in excess of a quantity of 500 kilograms on the occasion of its first importation or manufacture. The Board is of the opinion that this Section does not require the reporting of elemental chemicals which may be potentially hazardous to health or the environment and therefore recommends that consideration be given to amending the Section accordingly.

## **11           Penalties**

The Board notes that Section 8(5) of the Environmental Contaminants Act specifies a maximum fine or a maximum term of imprisonment upon conviction for an offence under this Section of the Act. It does not specify a minimum penalty.

The Board is of the opinion that the Government should give consideration to strengthening the Environmental Contaminants Act by stipulating different mandatory minimum fines for industry and the private individual, with the size of the enterprise being a determining factor.

For offences under Sections of the Act other than Section 8, Section 17 states that the offender shall be punishable on summary conviction which carries a comparatively low maximum fine or six months imprisonment. It would appear that a polluter could choose summary conviction as a penalty for barring entry to an inspector who has reason to believe that an offence under Section 8 is being committed and in this way avoid the higher penalty provided under Section 8.

The Board recommends that the penalty for offences under the Act other than those under Section 8 and now confined to the levels that may be imposed under a summary conviction, should be studied to determine whether the Criminal Code provisions and penalties under the chapter dealing with summary convictions are adequate for the Environmental Contaminants Act, if the Act is to be effectively enforced. In particular the six months limitation on any prosecution under Section 721 of the Criminal Code presents obvious difficulties.

## 12            **General Observations**

The Board wishes to take note of some confusion in the definitions of "class of substances" in Sections 2(1) and 4(5) and referred to also in Section 4(4). The Board believes it would be desirable to examine these definitions in order to avoid a possible conflict in the meaning that appears now to be possible.

Similarly, the Board wishes to observe that in the definition of "release" under Section 2 no reference is made to releases that are the result of abandonment of equipment and some attention might be paid to this type of situation not covered by the present definition.

There are also a number of problems involving Section 10 where documents may not be on site but at headquarters and cannot therefore be examined; and under Section 17 where all offences other than those covered by Section 8 fall within the summary conviction provisions of the Criminal Code. The Board recommends that a review of the enforcement effectiveness of the Environmental Contaminants Act, and related legislation, be undertaken to ensure an overall efficiency in aid of the national policy to protect the environment.

Finally, the Board suggests that in its Second Report it will be necessary to have a more comprehensive look at the Act as a whole in order to satisfy the Government's invitation to the Board to make certain that the Act speaks clearly with particular reference to those matters that bear on the role and activities of Boards of Review.

The Board believes that the above report deals with the principal issues raised in the proposed amendments as well as by the general rationale and policy of the Government of Canada in seeking the elimination of PCBs from the Canadian environment.



## REFERENCES

1. M.M. Dillon Ltd. 1979 Review of Substitutes for PCB in Transformers. November 30, 1979.
2. MacDonald, L.P., D.J. Skinner, E.J. Hopton and G.H. Thomas. Burning Waste Chlorinated Hydrocarbons in a Cement Kiln. EPS Technology Development Report 4-WP-77-2. Fisheries and Environment. March, 1977.
3. Ahling, B. Destruction of Chlorinated Hydrocarbons in a Cement Kiln. Environmental Science and Technology 13(11): 1377-1379. 1979.
4. Smith, J.G. and G.L. Bubbar. The Chemical Destruction of Polychlorinated Biphenyls by Sodium Naphthalenide. Submitted for publication to: Journal of Chemical Technology and Biotechnology.
5. M.M. Dillon Ltd. Facilities for Storage of PCB Wastes - Selection of Sites and Handling Systems. October, 1979.

## SELECTED BIBLIOGRAPHY

1. Background to the Regulation of Polychlorinated Biphenyls (PCB) in Canada. A Report of the Task Force on PCB, April 1, 1976 to the Environmental Contaminants Committee of Environment Canada and Health and Welfare Canada. Technical Report 76-1. 1976.
2. Disposal of Hazardous Wastes. Manual on Hazardous Substances in Special Wastes. NATO (North Atlantic Treaty Organization) CCMS (Committee on the Challenges of Modern Society) Publication No. 55. October 1976.
3. Disposal of Hazardous Wastes. Recommended Procedures for Hazardous Waste Management. NATO CCMS Publication No. 62. June 1977.
4. Disposal of Hazardous Wastes. Landfill. NATO CCMS Publication No. 64. May 1977.
5. Disposal of Hazardous Wastes. Transportation. NATO CCMS No. 68. July 1977.
6. Environmental Health Criteria 2. Polychlorinated Biphenyls and Terphenyls. World Health Organization. 1976.
7. Guideline for the Management of Waste Material Containing Polychlorinated Biphenyls (PCBs). Regulations, Codes and Protocols Report EPS-1-EC-78-1. Fisheries and Environment Canada. 1978.
8. Guideline on Central Collection and Storage Facilities for Waste Materials Containing Polychlorinated Biphenyls (PCBs). Regulations, Codes and Protocols Report EPS 1-EC-78-8. Environment Canada. 1978.

9. IARC (International Agency for Research on Cancer) Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Polychlorinated biphenyls and Polybrominated biphenyls. Volume 18. 1978.
10. M.M. Dillon Ltd. PCB in Transformers. An Assessment of the Effect on Users of the Phase Out of the Use of Polychlorinated Biphenyls in Transformers. 1979.
11. M.M. Dillon Ltd. Solidification Temperature Variation of Transformer Askarels Diluted by TTCB. 1979.
12. PCB and PCT in Commercially Available Products and in Samples of Garbage. Surveillance Report. Report EPS-5-EC-77-2. Environment Canada. 1978.
13. Roberts, J.R., D.W. Rodgers, J.R. Bailey and M.A. Rorke. Polychlorinated Biphenyls: Biological Criteria for an Assessment of Their Effects on Environmental Quality. National Research Council Canada Publication No. 16077. 1978.
14. Traitement des Déchets Dangereux. Le Dépôt Souterrain. NATO CCMS Publication No. 69. 1977.
15. Williams, D.T. and F.M. Benoit. The Determination of Polychlorinated Biphenyls in Selected Household Products. Bulletin of Environmental Contamination and Toxicology 21(1/2): 179-184. 1979.

## APPENDIX A

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## CHAPTER 72

An Act to protect human health and the environment from substances that contaminate the environment

[Assented to 2nd December, 1975]

Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

## SHORT TITLE

1. This Act may be cited as the *Environmental Contaminants Act*.

## INTERPRETATION

Definitions	2. (1) In this Act,
"analyst" «analyste»	"analyst" means a person designated as an analyst pursuant to subsection 9(1);
"class of substances" «catégorie...»	"class of substances" means any two or more substances that (a) contain the same chemical moiety, or (b) have similar chemical properties and the same type of chemical structure;
"inspector" «inspecteur»	"inspector" means a person designated as an inspector pursuant to subsection 9(1);
"Minister" «Ministre»	"Minister" means the Minister of the Environment;

## CHAPITRE 72

Loi ayant pour objet de protéger la santé et l'environnement contre les contaminants

[Sanctionné le 2 décembre 1975]

Sa Majesté, sur l'avis et du consentement du Sénat et de la Chambre des communes du Canada, décrète:

## TITRE ABRÉGÉ

1. La présente loi peut être citée sous le titre: *Loi sur les contaminants de l'environnement*.

## INTERPRÉTATION

2. (1) Dans la présente loi,	Définitions
«analyste» signifie une personne désignée comme analyste en application du paragraphe 9(1);	«analyste» "analyste"
«annexe» désigne l'annexe à la présente loi que le gouverneur en conseil peut modifier a) soit en y ajoutant des substances ou catégories de substances, conformément au paragraphe 7(1), b) soit en en retranchant des substances ou catégories de substances, conformément au paragraphe 7(7);	«annexe» "schedule"
«catégorie de substances» désigne tout groupe de deux substances ou plus a) qui comportent la même portion chimique, ou	«catégorie de substances» "class..."

"prescribed" "prescribed" means prescribed by regulation;  
«prescrit»

"release" "release" includes spilling, leaking, pumping, spraying, pouring, emitting, emptying, throwing or dumping;  
«rejet»

"schedule" "schedule" means the schedule to this Act to which the Governor in Council may  
«annexe»

(a) add substances or classes of substances pursuant to subsection 7(1), and

(b) delete substances or classes of substances pursuant to subsection 7(7);

"substance" "substance" means any distinguishable kind of inanimate matter  
«substance»

(a) capable of becoming dispersed in the environment, or

(b) capable of becoming transformed in the environment into matter described in paragraph (a).

Application of Act (2) This Act is binding on Her Majesty in right of Canada or a province and any agent thereof.

#### INFORMATION

Notice 3. (1) For the purpose of ascertaining whether any substances are entering or are likely to enter the environment in quantities that may constitute a danger to human health or the environment, the Minister may cause to be published in the *Canada Gazette* and in any other manner that he deems appropriate a notice requiring persons who import, manufacture or process or who intend to import, manufacture or process any substance specified therein or any substance that is a member of a class of substances specified therein to furnish the Minister with such information respecting quantities of such substances as is specified therein.

b) qui ont des propriétés chimiques semblables et le même genre de structure chimique;

«inspecteur» signifie une personne désignée comme inspecteur en application du paragraphe 9(1);

«Ministre» désigne le ministre de l'Environnement;

«prescrit» signifie prescrit par règlement;

«rejet» comprend le versement, le déversement, l'écoulement, le pompage, l'arrosage, l'épandage, la vaporisation, l'évacuation, l'émission, le vidage, le jet ou le basculage;

«substance» désigne toute sorte de matière inanimée susceptible

a) de se répandre dans l'environnement, ou

b) de se transformer dans l'environnement en une matière visée à l'alinéa a).

(2) La présente loi lie Sa Majesté du chef du Canada ou d'une province, et tout mandataire de celle-ci.

#### RENSEIGNEMENTS

3. (1) Le Ministre peut, afin de savoir si des substances pénètrent dans l'environnement, ou sont susceptibles de le faire, en quantités éventuellement dangereuses pour celui-ci ou la santé, faire publier dans la *Gazette du Canada*, et de toute autre manière qu'il estime indiquée, un avis obligeant toute personne qui les importe, les fabrique ou les traite, ou a l'intention de le faire, au-delà d'une limite donnée pour chaque substance ou catégorie de substances, à lui donner, en ce qui concerne les quantités de ces substances, les renseignements qui y sont précisés.

«inspecteur»  
"inspector"

«Ministre»  
"Minister"

«prescrit»  
"prescribed"

«rejet»  
"release"

«substance»  
"substance"

Application de la loi

Avis



Notice to  
be complied  
with

(2) On publication of the notice described in subsection (1), every person shall comply therewith within such reasonable time or times as are specified therein if such person

(a) has, in the twelve-month period preceding publication thereof, imported, manufactured or processed, or

(b) intends, in the twelve-month period following publication thereof, to import, manufacture or process,

a substance specified in the notice or any substance that is a member of a class of substances specified in the notice in excess of a quantity specified therein in respect of that substance or class of substances as the case may be.

Minister  
may gather  
information

(3) Where the Minister or the Minister of National Health and Welfare suspects that a substance is entering or is likely to enter the environment in a quantity or concentration or under conditions that may constitute a danger to human health or the environment, the Minister or the Minister of National Health and Welfare may

(a) collect data and conduct investigations respecting

(i) the nature of the substance or of any class of substances of which it is a member,

(ii) the presence in the environment of the substance or of any class of substances of which it is a member and the effect of such presence on human health or the environment,

(iii) the extent to which the substance or any class of substances of which it is a member can become dispersed and will persist in the environment,

(iv) the ability of the substance or of any class of substances of which it is a member to become incorporated and to accumulate in biological tissues and to cause biological change,

(v) methods of controlling the presence in the environment of the sub-

Observation  
de l'avis

(2) Est tenue de se conformer à l'avis mentionné au paragraphe (1), dès sa publication et dans les délais raisonnables qu'il précise, toute personne qui a,

a) au cours des douze mois précédents, importé, fabriqué ou traité, ou

b) au cours des douze mois suivants, l'intention d'importer, de fabriquer ou de traiter

une quantité, soit de l'une des substances, soit de l'une de celles appartenant à une catégorie, visées dans l'avis, supérieure à la quantité qu'indique celui-ci.

Le Ministre  
peut recueillir  
des renseignements

(3) Lorsque le Ministre ou le ministre de la Santé nationale et du Bien-être social soupçonne qu'une substance pénètre ou est susceptible de pénétrer dans l'environnement en une quantité ou concentration ou dans des conditions qui peuvent mettre en danger la santé ou l'environnement, il peut

a) recueillir des données et faire des enquêtes

(i) sur la nature de cette substance ou de toute catégorie de substances dont elle fait partie,

(ii) sur la présence, dans l'environnement, de cette substance ou de toute catégorie de substances dont elle fait partie et sur l'effet de cette présence sur la santé et l'environnement,

(iii) sur la mesure dans laquelle cette substance ou toute catégorie de substances dont elle fait partie peut se répandre et restera dans l'environnement,

(iv) sur la capacité de cette substance ou de toute catégorie de substances dont elle fait partie de s'introduire dans les tissus biologiques et de causer des changements d'ordre biologique,

(v) sur les méthodes de contrôle de la présence, dans l'environnement, de

stance or of any class of substances of which it is a member, and

(vi) methods for testing the effects of the presence in the environment of the substance or of any class of substances of which it is a member;

(b) correlate and evaluate any data collected pursuant to paragraph (a) and publish results of any investigations carried out pursuant to that paragraph; and

(c) provide information and consultative services and make recommendations respecting measures to control the presence in the environment of the substance or of any class of substances of which it is a member.

cette substance ou de toute catégorie de substances dont elle fait partie, et

(vi) sur les méthodes de vérification des effets de la présence, dans l'environnement, de cette substance ou de toute catégorie de substances dont elle fait partie;

b) mettre en corrélation et analyser les données recueillies en application de l'alinéa a) et publier les résultats des enquêtes effectuées en application de cet alinéa; et

c) fournir des renseignements et des services de consultation et faire des recommandations au sujet de mesures visant à limiter la présence, dans l'environnement, de cette substance ou de toute catégorie de substances dont elle fait partie.

Advisory  
committees

(4) The Minister and the Minister of National Health and Welfare may jointly appoint advisory committees to review any data collected pursuant to subsection (1) and paragraph (3)(a), to receive representations from interested parties or concerned members of the public and to advise the Minister and the Minister of National Health and Welfare respecting measures to control the presence in the environment of any substance or class of substances.

(4) Le Ministre et le ministre de la Santé nationale et du Bien-être social peuvent constituer conjointement des comités consultatifs chargés d'examiner des données recueillies en application du paragraphe (1) et de l'alinéa (3)a), de recevoir les observations de tous les intéressés et de conseiller le Ministre et le ministre de la Santé nationale et du Bien-être social au sujet de mesures visant à limiter la présence, dans l'environnement, de quelque substance ou catégorie de substances.

Comités  
consultatifs

Reports

(5) A committee appointed pursuant to subsection (4) shall make public its reports and recommendations with the reasons therefor.

(5) Un comité constitué en vertu du paragraphe (4) doit rendre publics ses rapports et recommandations et les raisons qui les motivent.

Rapports

Minister to  
make use of  
services of  
other depart-  
ments

(6) The Minister and the Minister of National Health and Welfare shall, in carrying out any activity described in paragraph (3)(a), wherever reasonably possible, act jointly and make use of the services and facilities of other departments of the Government of Canada or of any agencies thereof.

(6) Le Ministre et le ministre de la Santé nationale et du Bien-être social doivent toutes les fois qu'il est raisonnablement possible de le faire, dans l'exercice de toute activité visée à l'alinéa (3)a), agir conjointement et utiliser les services et installations des autres ministères du gouvernement du Canada ou de tout organisme de celui-ci.

Le Ministre  
utilise les  
services  
d'autres  
ministères

Minister to  
act in co-  
operation  
with gov-  
ernment, etc.

(7) The Minister and the Minister of National Health and Welfare may carry out any of the activities described in paragraph (3)(a) in cooperation with any government or agency thereof or any body, organization or person.

(7) Le Ministre et le ministre de la Santé nationale et du Bien-être social peuvent exercer toute activité visée à l'alinéa (3)a) en collaboration avec tout gouvernement, organisme gouvernemental ou groupe ou toute organisation ou personne.

Collabora-  
tion du  
Ministre  
avec un  
gouverne-  
ment, etc.

Agreements  
with  
provinces

(8) The Minister and the Minister of National Health and Welfare may, with the approval of the Governor in Council, enter into agreements with one or more provincial governments for the purpose of facilitating the collection of data and the conduct of investigations pursuant to paragraph (3) (a).

#### DISCLOSURE

Notice to  
disclose

4. (1) Where the Minister and the Minister of National Health and Welfare have reason to believe that a substance is entering or will enter the environment in a quantity or concentration or under conditions that they have reason to believe constitute or will constitute a significant danger to human health or the environment, the Minister may take any or all of the following steps:

(a) cause to be published in the *Canada Gazette* and in any other manner that the Minister deems appropriate a notice requiring any person engaged in any commercial, manufacturing or processing activity involving the substance or any member of a class of substances of which the substance is a member to notify the Minister thereof;

(b) send a written notice to any person engaged in any commercial, manufacturing or processing activity involving the substance or any member of a class of substances of which the substance is a member requiring him to furnish to the Minister such information specified in the notice relating to the substance or to any member of the class of substances specified in the notice as is in his possession or to which he may reasonably be expected to have access; and

(c) send a written notice to any person engaged in the importation or manufacturing of the substance or any product containing the substance requiring him to conduct such tests as are specified in the notice and as the Minister and the Minister of National Health and Welfare may reasonably require.

Accords  
avec les  
provinces

(8) Le Ministre et le ministre de la Santé nationale et du Bien-être social peuvent, avec l'approbation du gouverneur en conseil, conclure des accords avec un ou plusieurs gouvernements provinciaux en vue de faciliter la collecte de données et l'exécution d'enquêtes en application de l'alinéa (3) a).

#### COMMUNICATION DE RENSEIGNEMENTS

Avis en-  
joignant de  
communiquer  
des  
renseigne-  
ments

4. (1) Lorsque le Ministre et le ministre de la Santé nationale et du Bien-être social ont des motifs de croire qu'une substance pénètre ou pénétrera dans l'environnement en une quantité ou concentration ou dans des conditions qui mettent ou mettront sensiblement en danger la santé ou l'environnement, le Ministre peut prendre les mesures suivantes ou l'une ou plusieurs d'entre elles:

a) faire publier dans la *Gazette du Canada* et de toute autre manière qu'il juge appropriée un avis exigeant que toute personne pratiquant des opérations commerciales, de fabrication ou de traitement qui mettent en cause cette substance ou toute substance appartenant à une catégorie de substances dont elle fait partie, en avise le Ministre;

b) envoyer à toute personne pratiquant des opérations commerciales, de fabrication ou de traitement qui mettent en cause cette substance ou toute substance appartenant à la catégorie de substances dont elle fait partie, un avis écrit exigeant qu'elle fournisse au Ministre, relativement à cette substance ou à toute substance appartenant à la catégorie de substances spécifiée dans l'avis, les renseignements y spécifiés qu'elle possède ou qu'il lui serait normalement possible d'obtenir; et

c) envoyer à toute personne qui se livre à l'importation ou à la fabrication de cette substance ou de tout produit contenant cette substance, un avis écrit exigeant qu'elle fasse les expériences y spécifiées que le Ministre et le ministre de la Santé nationale et du Bien-être social peuvent raisonnablement exiger.



Notice to  
be complied  
with

(2) Every person

(a) who, on publication of a notice referred to in paragraph (1)(a), is a person engaged in any commercial, manufacturing or processing activity involving the substance or any member of a class of substances specified in the notice, or

(b) to whom a notice referred to in paragraph (1)(b) or (c) has been sent

shall comply with the notice within such reasonable time or times as are specified therein.

(2) Toute personne

a) qui, au moment de la publication de l'avis prévu à l'alinéa (1)a), pratique des opérations commerciales, de fabrication ou de traitement mettant en cause la substance spécifiée dans cet avis ou toute substance appartenant à une catégorie de substances y spécifiée, ou

b) à qui a été envoyé un avis prévu aux alinéas (1)b) ou c)

doit se conformer à l'avis ou aux avis en question dans le délai ou les délais raisonnables qui y sont indiqués.

Obligation  
de se  
conformer  
à l'avis

Extension  
of time

(3) Notwithstanding subsection (2), the Minister may, upon request in writing from any person to whom a notice referred to in paragraph (1)(b) or (c) has been sent, extend the time or times within which the person shall comply with the notice.

(3) Nonobstant le paragraphe (2), le Ministre peut, à la demande, formulée par écrit, de toute personne qui a reçu un avis prévu aux alinéas (1)b) ou c), proroger le délai ou les délais qui lui sont donnés pour se conformer à cet avis.

Prorogation  
du délai

Non-dis-  
closure of  
certain in-  
formation

(4) Any information received pursuant to subsection (1), subsection 3(2) or paragraph 3(3)(a) that relates to a formula or process by which any thing is manufactured or processed, whether patented or not, or to other trade secrets or that is sales or production information that has been specified, in writing, as information that is given in confidence shall not be disclosed except as may be necessary for the purposes of this Act.

(4) Nul renseignement reçu en application des paragraphes (1) ou 3(2) ou de l'alinéa 3(3)a) qui se rapporte soit à une formule ou à un procédé, brevetés ou non, utilisés pour la fabrication ou le traitement d'une chose quelconque, soit à d'autres secrets industriels, ou qui constitue un renseignement relatif aux ventes ou à la production au sujet duquel il a été spécifié par écrit qu'il était donné à titre confidentiel, ne doit être divulgué, si ce n'est dans la mesure où cela peut être nécessaire aux fins de la présente loi.

Non-divul-  
gation de  
certains  
renseigne-  
ments

"Class of  
substances"  
defined

(5) For the purposes of this section only, a "class of substances" means a class of substances whose members have similar physico-chemical or toxicological properties.

(5) Aux seules fins du présent article, une «catégorie de substances» est une catégorie constituée de substances ayant des propriétés physico-chimiques ou toxicologiques semblables.

Définition de  
«catégorie de  
substances»

Mandatory  
reporting

(6) Where, during a calendar year, a person manufactures or imports a chemical compound in excess of five hundred kilograms and he manufactures or imports that compound in excess of that quantity for the first time, he shall, within three months

(6) La personne qui, pour la première fois, fabrique ou importe, au cours d'une année civile, plus de cinq cents kilogrammes d'un composé chimique doit, dans les trois mois suivant la date de fabrication ou d'importation de ladite quantité, commu-

Communi-  
cation  
obligatoire

of manufacturing or importing the said quantity, notify the Minister of the name of the compound, of the quantity manufactured or imported during that year and of any information in his possession respecting any danger to human health or the environment posed by the compound.

## CONSULTATION

Consultation  
with  
provinces  
and depart-  
ments or  
agencies

5. (1) Where the Minister and the Minister of National Health and Welfare are satisfied that a substance or class of substances is entering or will enter the environment in a quantity or concentration or under conditions that they are satisfied constitute or will constitute a significant danger in Canada or any geographical area thereof to human health or the environment, they shall, before making any recommendation to the Governor in Council under subsection 7(1), offer, as soon as reasonably practicable but no later than fifteen days after the said Ministers are so satisfied, to consult with

(a) the governments of any provinces that indicate that their provinces are likely to be materially affected by any such recommendation, and

(b) any departments or agencies of the Government of Canada as may be appropriate

in order to determine whether the significant danger perceived by them will be eliminated by any action taken or proposed to be taken pursuant to any other law.

Publication  
of proposed  
order and  
regulations

(2) Where, after consultation pursuant to subsection (1) or after an offer to consult has not been accepted within thirty days, the Minister and the Minister of National Health and Welfare are satisfied that the significant danger referred to in that subsection will not be eliminated by any action taken or proposed to be taken pursuant to any other law and they propose to recommend to the Governor in Council that

(a) an order amending the schedule by adding the substance or class of substances be made under subsection

7(1) au Ministre le nom du composé, la quantité fabriquée ou importée pendant l'année et tout renseignement qu'il possède concernant le danger que constitue le composé pour la santé ou l'environnement.

## CONSULTATION

Consultation  
avec les  
provinces,  
ministères  
ou  
organismes

5. (1) Lorsque le Ministre et le ministre de la Santé nationale et du Bien-être social sont convaincus qu'une substance ou une catégorie de substances pénétrera ou pénétrera dans l'environnement en une quantité ou concentration ou dans des conditions qui mettent ou mettront sensiblement en danger la santé ou l'environnement au Canada ou dans quelque région du Canada, ils doivent, avant de faire une recommandation au gouverneur en conseil en vertu du paragraphe 7(1), offrir dans les meilleurs délais raisonnables mais au plus tard quinze jours après en avoir été convaincus, de consulter

a) tous les gouvernements provinciaux qui font état des répercussions importantes que cette recommandation entraîne vraisemblablement dans leur territoire, et

b) tous les ministères ou organismes du gouvernement du Canada dont il peut être à propos de prendre l'avis,

afin de déterminer si le danger qu'ils appréhendent sera éliminé par des mesures prises ou projetées en application de quelque autre loi.

(2) Lorsque, après avoir procédé aux consultations prévues au paragraphe (1), ou lorsqu'une offre de consultation n'est pas acceptée dans un délai de trente jours, le Ministre et le ministre de la Santé nationale et du Bien-être social sont convaincus que le danger visé par ce paragraphe ne sera pas éliminé par des mesures prises ou projetées en application de quelque autre loi, et se proposent de recommander au gouverneur en conseil

a) qu'un décret modifiant l'annexe en y ajoutant la substance ou catégorie de substances visée soit pris en vertu

Publication  
des projets  
de décrets  
et de  
règlements

7(1) and regulations relating to such substance or class of substances be made under any of paragraphs 18(a) to (e), or

(b) regulations that would modify or supplement in a material respect regulations relating to the substance or class of substances already made under any of paragraphs 18(a) to (e) be made,

the Minister shall cause to be published in the *Canada Gazette*,

(c) if paragraph (a) applies, a copy of the proposed order and regulations referred to in that paragraph, or

(d) if paragraph (b) applies, a copy of the proposed regulations referred to in that paragraph.

du paragraphe 7(1) et que des règlements relatifs à cette substance ou catégorie de substances soient établis en vertu d'un ou plusieurs des alinéas 18a) à e), ou

b) que des règlements modifiant ou complétant sur un point essentiel les règlements relatifs à la substance ou catégorie de substances visée déjà établis en vertu d'un ou plusieurs des alinéas 18a) à e) soient établis,

le Ministre doit faire publier dans la *Gazette du Canada*,

c) si l'alinéa a) s'applique, une copie du projet de décret et de règlements visé à cet alinéa; ou,

d) si l'alinéa b) s'applique, une copie du projet de règlements visé à cet alinéa.

Notice of  
objection

(3) Any person having an interest therein may, within sixty days of publication in the *Canada Gazette* of a copy of any proposed order and regulations pursuant to paragraph (2)(c) or any proposed regulations pursuant to paragraph (2)(d), file a notice of objection with the Minister.

(3) Tout intéressé peut, dans les soixante jours de la publication, dans la *Gazette du Canada*, d'une copie de quelque projet de décret et de règlements publiée en application de l'alinéa (2)c), ou d'une copie de quelque projet de règlements publiée en application de l'alinéa (2)d), déposer un avis d'opposition entre les mains du Ministre.

Avis  
d'opposition

#### ENVIRONMENTAL CONTAMINANTS BOARD OF REVIEW

#### COMMISSION D'ÉTUDE SUR LES CONTAMINANTS DE L'ENVIRONNEMENT

Establish-  
ment of  
Environ-  
mental Con-  
taminants  
Board of  
Review

6. (1) Upon receipt of a notice of objection referred to in subsection 5(3) within the time specified in that subsection, the Minister and the Minister of National Health and Welfare shall establish an Environmental Contaminants Board of Review (in this section referred to as a "Board") consisting of not less than three persons and shall refer the proposed order and regulations or the proposed regulations in respect of which the notice of objection was filed to the Board.

6. (1) Sur réception de l'avis d'opposition visé au paragraphe 5(3) dans le délai prévu par ce paragraphe, le Ministre et le ministre de la Santé nationale et du Bien-être social doivent établir une Commission d'étude sur les contaminants de l'environnement (appelée, au présent article, «Commission») composée d'au moins trois personnes et saisir cette Commission du projet de règlements ou du projet de décret et de règlements auquel se rapporte l'avis d'opposition.

Établisse-  
ment d'une  
Commission  
d'étude sur  
les contami-  
nants de  
l'environne-  
ment

Duties

(2) A Board shall inquire into the nature and extent of the danger posed by the substance or class of substances to which any proposed order and regulations or proposed regulations referred to it under subsection

(2) La Commission doit faire enquête sur la nature et l'étendue du danger que représente la substance ou catégorie de substances à laquelle s'applique le projet de règlements ou le projet de décret et de

Fonctions



(1) apply and in particular shall inquire into the matters described in subparagraphs 3(3)(a)(i) to (v), and shall give the person filing the notice of objection and any other interested or knowledgeable person a reasonable opportunity of appearing before the Board, presenting evidence and making representations to it.

**Powers**

(3) For the purposes of an inquiry under subsection (2), a Board has and may exercise all the powers of a person appointed as a commissioner under Part I of the *Inquiries Act*.

**Report**

(4) A Board, as soon as possible after the conclusion of an inquiry, shall submit a report to the Minister and the Minister of National Health and Welfare, together with its recommendations and all evidence that was before the Board.

**Publication of report**

(5) The report of a Board shall, within thirty days after its receipt by the Minister and the Minister of National Health and Welfare, be made public unless the Board states in writing that it believes the public interest would be better served by withholding publication, in which case the Minister and the Minister of National Health and Welfare may decide whether the report, either in whole or in part, should be made public.

## SCHEDULE

**Addition to schedule, etc.**

7. (1) Subject to subsection (2), where the Governor in Council, on the recommendation of the Minister and the Minister of National Health and Welfare, is satisfied that a substance or class of substances is entering or will enter the environment in a quantity or concentration or under conditions that he is satisfied constitute

règlements dont elle est saisie en vertu du paragraphe (1) et notamment sur les points visés aux sous-alinéas 3(3)a)(i) à (v), et elle doit donner à la personne qui a déposé l'avis d'opposition et à toute personne intéressée ou bien informée la possibilité raisonnable de comparaître devant elle et de lui présenter une preuve et des observations.

**Pouvoirs**

(3) Aux fins d'une enquête effectuée en vertu du paragraphe (2), la Commission possède et peut exercer tous les pouvoirs d'une personne nommée pour exercer les fonctions de commissaire sous le régime de la Partie I de la *Loi sur les enquêtes*.

**Rapport**

(4) Toute Commission doit, aussitôt que possible après la fin de son enquête, présenter un rapport au Ministre et au ministre de la Santé nationale et du Bien-être social, ainsi que ses recommandations et l'ensemble de la preuve dont elle a pris connaissance.

**Publication du rapport**

(5) Le rapport d'une Commission doit être rendu public dans les trente jours de sa réception par le Ministre et le ministre de la Santé nationale et du Bien-être social, à moins que la Commission ne déclare par écrit qu'elle croit que l'intérêt public serait mieux servi si le rapport n'était pas publié, auquel cas le Ministre et le ministre de la Santé nationale et du Bien-être social peuvent décider s'il y a lieu ou non de le rendre public, en totalité ou en partie.

## ANNEXE

**Ajoute à la liste, etc.**

7. (1) Sous réserve du paragraphe (2), lorsque le gouverneur en conseil, à la suite d'une recommandation du Ministre et du ministre de la Santé nationale et du Bien-être social, est convaincu qu'une substance ou une catégorie de substances pénétrera ou pénétrera dans l'environnement en une quantité ou concentration ou dans des con-

or will constitute a significant danger in Canada or any geographical area thereof to human health or the environment, he may, by order, add to the schedule the substance or class of substances.

ditions qui mettent ou mettront sensiblement en danger la santé ou l'environnement au Canada ou dans quelque région du Canada, il peut, par décret, ajouter à l'annexe cette substance ou catégorie de substances.

Order  
subject to  
conditions

(2) The Governor in Council may only make the order referred to in subsection (1) if any report of an Environmental Contaminants Board of Review established as a result of publication required under paragraph 5(2)(c) or (d) has been received by the Minister and the Minister of National Health and Welfare pursuant to subsection 6(4).

(2) Le gouverneur en conseil ne peut établir le décret visé au paragraphe (1) que si un rapport d'une Commission d'étude sur les contaminants de l'environnement établie par suite de la publication, exigée en vertu des alinéas 5(2)c) ou d), a été reçu par le Ministre et le ministre de la Santé nationale et du Bien-être social en application du paragraphe 6(4).

Conditions  
préalables  
à l'établisse-  
ment du  
décret

Emergency

(3) Where the Governor in Council is satisfied that a substance or class of substances is entering or will enter the environment in a quantity or concentration or under conditions that he is satisfied require immediate action to prevent a significant danger in Canada or any geographical area thereof to human health or the environment, he may, notwithstanding that no consultations have taken place pursuant to subsection 5(1) with respect to the substance or class of substances and that no copy of any proposed order and regulations or proposed regulations have been published in the *Canada Gazette* pursuant to subsection 5(2), make such order and regulations or regulations.

(3) Lorsque le gouverneur en conseil est convaincu qu'une substance ou une catégorie de substances pénètre ou pénétrera dans l'environnement en une quantité ou concentration ou dans des conditions qui exigent que des mesures soient prises immédiatement pour empêcher que la santé ou l'environnement soit sensiblement mis en danger au Canada ou dans quelque région du Canada, il peut, même s'il n'a pas été procédé à des consultations en application du paragraphe 5(1) relativement à cette substance ou catégorie de substances et même si nulle copie de projet de règlements ou de projet de décret et de règlements n'a été publiée dans la *Gazette du Canada* en application du paragraphe 5(2), établir ce décret et ces règlements ou ce règlement.

Urgence

Reference of  
order and  
regulations

(4) Where the Governor in Council has made any order and regulations or regulations pursuant to subsection (3), any person having an interest therein may, within sixty days of publication thereof in the *Canada Gazette*, file a notice of objection with the Minister.

(4) Lorsque le gouverneur en conseil a établi des règlements ou un décret et des règlements en application du paragraphe (3), tout intéressé peut, dans les soixante jours de leur publication dans la *Gazette du Canada*, déposer un avis d'opposition entre les mains du Ministre.

Examen du  
décret et  
des  
règlements

Establish-  
ment of  
Board

(5) Upon receipt of a notice of objection referred to in subsection (4) within the time specified in that subsection, the Minister and the Minister of National Health and Welfare shall establish an

(5) Sur réception de l'avis d'opposition visé au paragraphe (4) dans le délai prévu par ce paragraphe, le Ministre et le ministre de la Santé nationale et du Bien-être social doivent établir une Commission d'étude sur

Établisse-  
ment d'une  
Commission

Environmental Contaminants Board of Review consisting of not less than three persons and shall refer any order and regulations or regulations in respect of which the notice of objection was filed to the Board.

Provisions  
made  
applicable

(6) Subsections 6(2) to (5) apply to an inquiry held by an Environmental Contaminants Board of Review established pursuant to subsection (5) of this section with such modifications as the circumstances require.

Deletion  
from  
schedule

(7) Where the Governor in Council is satisfied that the inclusion of a substance or class of substances in the schedule is no longer necessary, he may, by order, delete from the schedule such substance or class of substances.

les contaminants de l'environnement composée d'au moins trois personnes et saisir cette Commission des règlements ou du décret et des règlements auxquels se rapporte l'avis d'opposition.

Dispositions  
applicables

(6) Les paragraphes 6(2) à (5) s'appliquent, avec les modifications qu'exigent les circonstances, à une enquête tenue par une Commission d'étude sur les contaminants de l'environnement établie en application du paragraphe (5) du présent article.

Radiation  
de l'annexe

(7) Lorsque le gouverneur en conseil est convaincu qu'il n'est plus nécessaire qu'une substance ou une catégorie de substances figure sur la liste, il peut, par décret, retrancher de l'annexe cette substance ou catégorie de substances.

#### OFFENCES

Release

8. (1) No person shall, in the course of a commercial, manufacturing or processing activity, wilfully release, or permit the release of, a substance specified in the schedule or any substance that is a member of a class of substances specified in the schedule into the environment in any geographical area prescribed in respect of that substance or class of substances or, if no geographical area is so prescribed, in Canada,

(a) in a quantity or concentration that exceeds the maximum quantity or concentration prescribed in respect of that substance or class of substances for the purpose of this paragraph; or

(b) under conditions prescribed in respect of such substance or class of substances for the purpose of this paragraph.

#### INFRACTIONS

Rejet

8. (1) Nul ne doit, délibérément, dans le cadre d'opérations commerciales, de fabrication ou de traitement, rejeter ou permettre que soit rejetée dans l'environnement une substance figurant à l'annexe ou quelque substance appartenant à une catégorie de substances qui y figure, dans une région prescrite relativement à cette substance ou catégorie de substances ou, si aucune région n'est ainsi prescrite, au Canada,

a) en une quantité ou concentration qui dépasse la quantité ou concentration maximale fixée par règlement relativement à cette substance ou catégorie de substances aux fins du présent alinéa; ou

b) dans des conditions déterminées par règlement relativement à cette substance ou catégorie de substances aux fins du présent alinéa.



Import,  
manufacture,  
etc.

(2) Subject to subsection (3), no person shall, for a commercial, manufacturing, or processing use prescribed for the purpose of this subsection, import, manufacture, process, offer for sale or knowingly use a substance specified in the schedule or any substance that is a member of a class of substances specified in the schedule in any geographical area prescribed in respect of such substance or class of substances or, if no geographical area is so prescribed, in Canada.

Exception

(3) Subsection (2) does not apply to any commercial, manufacturing or processing use prescribed for the purpose of that subsection involving a material that includes a substance specified in the schedule or any substance that is a member of a class of substances specified in the schedule if such substance is adventitiously present in the material and does not exceed a quantity or concentration consistent with good manufacturing practice.

Products

(4) No person shall import, manufacture or knowingly offer for sale a product that contains a substance specified in the schedule or any substance that is a member of a class of substances specified in the schedule in a quantity or concentration that exceeds the maximum quantity or concentration prescribed in respect of that substance or class of substances in relation to such product for the purpose of this subsection.

Offences

(5) Every person who contravenes this section is guilty of an offence and is liable

(a) on summary conviction, to a fine not exceeding one hundred thousand dollars; or

(b) on conviction upon indictment, to imprisonment for two years.

(2) Sous réserve du paragraphe (3), nul ne doit importer, fabriquer, traiter, mettre en vente ou utiliser sciemment une substance figurant à l'annexe, ou quelque substance appartenant à une catégorie qui y figure, destinée aux opérations commerciales, de fabrication ou de traitement, déterminées par règlement pour l'application du présent paragraphe, dans les régions déterminées par règlement pour chaque substance ou catégorie de substances ou, à défaut, au Canada.

(3) Le paragraphe (2) ne s'applique pas aux opérations commerciales, de fabrication ou de traitement déterminées par règlement qui portent sur une matière qui contient fortuitement une substance figurant à l'annexe ou quelque substance appartenant à une catégorie qui y figure, pourvu que la quantité contenue ou le degré de concentration soient conformes aux usages normaux de l'industrie.

(4) Nul ne doit importer, fabriquer ni sciemment mettre en vente un produit qui contient une substance figurant sur l'annexe ou quelque substance appartenant à une catégorie de substances qui y figure, en une quantité ou concentration qui dépasse la quantité ou concentration maximale fixée par règlement relativement à cette substance ou catégorie de substances, pour ce produit, aux fins du présent paragraphe.

(5) Quiconque contrevient au présent article est coupable d'une infraction et passible,

a) sur déclaration sommaire de culpabilité, d'une amende maximale de cent mille dollars; ou

b) sur déclaration de culpabilité à la suite d'une mise en accusation, d'un emprisonnement de deux ans.

Importation,  
fabrication,  
etc.

Exception

Produits

Infractions

Time limit	(6) No proceedings in respect of an offence punishable on summary conviction under this section may be instituted after one year from the time when the subject-matter of the proceedings arose.	(6) Il ne peut être engagé de procédure relativement à une infraction punissable sur déclaration sommaire de culpabilité en vertu du présent article plus d'un an après la date à laquelle s'est produit le fait pouvant y donner lieu.	Prescription
Continuing offences	(7) Where an offence under subsection (1) is committed on more than one day or is continued for more than one day, it shall be deemed to be a separate offence for each day on which the offence is committed or continued.	(7) L'infraction visée au paragraphe (1) est censée constituer une infraction distincte chaque jour où elle est commise ou se perpétue.	Infractions prolongées

## INSPECTORS AND ANALYSTS

## INSPECTEURS ET ANALYSTES

Inspectors and analysts	9. (1) The Minister may designate as an inspector or analyst for the purposes of this Act any person who, in his opinion, is qualified to be so designated.	9. (1) Le Ministre peut désigner pour occuper la fonction d'inspecteur ou d'analyste, aux fins de la présente loi, toute personne qu'il estime compétente pour occuper cette fonction.	Inspecteurs et analystes
Inspector to show certificate of designation	(2) An inspector shall be furnished with a certificate of his designation as an inspector and on entering any place pursuant to subsection 10(1) shall, if so required, produce the certificate to the person in charge thereof.	(2) Un inspecteur doit être pourvu d'un certificat de nomination à cette fonction, et lorsqu'il entre dans un lieu en application du paragraphe 10(1), il doit, s'il en est requis, produire le certificat à la personne qui a la charge de ce lieu.	L'inspecteur doit produire le certificat de nomination

## INSPECTION

## INSPECTION

Search	10. (1) An inspector may at any reasonable time enter any place in which he reasonably believes there is any substance or product by means of or in relation to which any provision of this Act has been contravened and may, where he has reason to believe it is necessary to do so for any purpose relating to the enforcement of this Act, (a) examine any substance or product found therein; (b) open and examine any receptacle or package found therein that he has reason to believe contains any substance or any substance of a class of substances specified in the schedule or any product containing any such substance; and (c) examine any books, reports, records, shipping bills and bills of lading or other	10. (1) Un inspecteur peut, à tout moment raisonnable, entrer dans un lieu lorsqu'il a des raisons de croire qu'il s'y trouve un produit ou une substance au moyen ou au sujet duquel ou de laquelle il a été contrevenu à une disposition de la présente loi, et il peut, lorsqu'il a des raisons de croire que cela est nécessaire, à quelque égard, pour l'application de la présente loi, a) examiner toute substance ou tout produit qui s'y trouve; b) ouvrir et examiner tout récipient ou paquet qui s'y trouve et dans lequel il a des raisons de croire qu'il y a une substance figurant à l'annexe ou une substance appartenant à une catégorie de substances qui y figure ou un produit contenant une telle substance; et	Perquisition
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documents or papers that on reasonable grounds he believes contain any information relevant to the enforcement of this Act and make copies thereof or extracts therefrom.

c) examiner les livres, rapports, registres, connaissements et feuilles d'expédition ou autres documents ou pièces qu'il croit, en se fondant sur des motifs raisonnables, contenir des renseignements pertinents pour l'application de la présente loi, et en prendre des copies ou des extraits.

Assistance  
to inspectors

(2) The owner or the person in charge of a place entered by an inspector pursuant to subsection (1) and every person found therein shall give the inspector all reasonable assistance in his power to enable the inspector to carry out his duties and functions under this Act and shall furnish him with such information with respect to the administration of this Act and the regulations as he may reasonably require.

(2) Le propriétaire ou la personne ayant la charge d'un lieu où un inspecteur entre en application du paragraphe (1) et toute personne qui s'y trouve doivent fournir toute l'aide raisonnable en leur pouvoir à l'inspecteur pour lui permettre d'exercer ses fonctions en vertu de la présente loi et lui fournir, en ce qui concerne l'application de la présente loi et des règlements, les renseignements qu'il peut raisonnablement exiger.

Aide à  
donner aux  
inspecteurs

Obstruction  
of inspectors

(3) No person shall obstruct or hinder an inspector in the carrying out of his duties and functions under this Act.

(3) Nul ne doit gêner ou empêcher un inspecteur dans l'exercice des fonctions que lui confère la présente loi.

Obstruction  
faite aux  
inspecteurs

#### SEIZURE AND DETENTION

#### SAISIE ET RÉTENTION

Seizure

11. (1) Whenever an inspector believes on reasonable grounds that any provision of this Act has been contravened, he may seize and detain any substance or product by means of or in relation to which he reasonably believes the contravention occurred.

11. (1) Chaque fois qu'un inspecteur croit, en se fondant sur des motifs raisonnables, qu'il a été contrevenu à une disposition de la présente loi, il peut saisir et retenir tout produit ou toute substance au moyen ou au sujet duquel ou de laquelle la contravention a été commise.

Saisie

Seizure  
limitation

(2) Except to the extent that the substance or product, or a sample thereof, is required as evidence or for purposes of analysis, an inspector shall not seize any substance or product pursuant to subsection (1) unless in his opinion such seizure is necessary in the public interest.

(2) Sauf dans la mesure où la substance ou le produit, ou un échantillon de ceux-ci, est nécessaire à titre de preuve ou aux fins d'analyse, un inspecteur ne doit saisir une substance ou un produit en application du paragraphe (1) que s'il estime cette saisie nécessaire dans l'intérêt public.

Restriction  
à la saisie

Notice of  
contra-  
vention

(3) Where an inspector has seized and detained any substance or product pursuant to subsection (1), he shall, as soon as practicable, advise the person in whose possession the substance or product was at the time of seizure of the provision of this Act that he believes has been contravened.

(3) Lorsqu'un inspecteur a saisi et retenu une substance ou un produit en application du paragraphe (1), il doit, dès que cela est matériellement possible, faire connaître, à la personne qui en avait la possession au moment de la saisie, la disposition de la présente loi qu'il croit avoir été enfreinte.

Avia de  
violation



Detention  
and  
release

(4) Any substance or product seized pursuant to subsection (1) shall not be detained

(a) after an inspector or the Minister, upon application made to him by the owner of the substance or product or by the person in whose possession the substance or product was at the time of seizure, is satisfied that it is not necessary in the public interest to continue to detain such substance or product, except to the extent that the substance or product, or a sample thereof, is required as evidence or for purposes of analysis; or

(b) after the expiration of sixty days from the day of seizure, unless before that time

(i) the substance or product has been forfeited pursuant to section 13,

(ii) proceedings have been instituted in respect of the contravention in relation to which the substance or product was seized, in which event the substance or product may be detained until the proceedings are finally concluded, or

(iii) notice of an application for an order extending the time during which the substance or product may be detained has been served in accordance with section 12.

Storing of  
seized  
substance  
or product

(5) A substance or product seized by an inspector pursuant to subsection (1) shall be kept or stored in the building or place where it was seized except where, in the opinion of the inspector, it is not in the public interest to do so, because such substance or product or a sample thereof is required as evidence or because the person in whose possession the substance or product was at the time of seizure or the person entitled to possession of the place requests the inspector that it be removed to some other place, in which case such substance or product may be removed to and stored

Rétention  
et remise

(4) Une substance ou un produit saisis en application du paragraphe (1) ne doivent plus être retenus

a) dès qu'un inspecteur ou le Ministre, à la suite d'une demande que lui présente le propriétaire de la substance ou du produit ou la personne qui en avait la possession au moment de la saisie, est convaincu qu'il n'est pas nécessaire, dans l'intérêt public, d'en poursuivre la rétention, sauf dans la mesure où cette substance ou ce produit, ou un échantillon de ceux-ci, est nécessaire à titre de preuve ou à des fins d'analyse; ou

b) dès l'expiration d'un délai de soixante jours à partir de la date de la saisie, sauf si, avant cela,

(i) la substance ou le produit ont été confisqués en application de l'article 13,

(ii) des procédures ont été intentées relativement à la contravention ayant donné lieu à la saisie de la substance ou du produit, auquel cas la substance ou le produit peuvent être retenus jusqu'à la fin des procédures, ou

(iii) un avis de demande d'ordonnance prolongeant le délai de rétention de la substance ou du produit a été signifié conformément à l'article 12.

Emmagasi-  
nage de la  
substance  
ou du  
produit  
saisis

(5) Une substance ou un produit saisis par un inspecteur en application du paragraphe (1) doivent être gardés ou emmagasinés dans le bâtiment ou le lieu où ils ont été saisis, sauf lorsque, de l'avis de l'inspecteur, cela n'est pas d'intérêt public, parce que cette substance ou ce produit ou un échantillon de ceux-ci sont nécessaires à titre de preuve ou parce que la personne qui avait la possession de la substance ou du produit au moment de la saisie ou la personne ayant droit à la possession du lieu en question demande à l'inspecteur de les placer ailleurs; dans ce cas, cette sub-

in any other place at the direction of or with the concurrence of an inspector and at the expense of the person who requested that it be so removed.

Interference  
with seized  
substance  
or product

(6) Unless authorized by an inspector, no person shall remove, alter or interfere in any way with any substance or product seized and detained by an inspector pursuant to subsection (1) but an inspector shall, at the request of the person from whom the substance or product was seized, allow that person or any person authorized by that person to examine the substance or product so seized and, where practicable, furnish a sample thereof to such person.

Application  
to extend  
period of  
detention

12. (1) Where proceedings have not been instituted in respect of the contravention in relation to which any substance or product was seized pursuant to subsection 11(1), the Minister may, before the expiration of sixty days from the day of seizure and upon the serving of prior notice in accordance with subsection (2) on the owner of the substance or product or on the person in whose possession the substance or product was at the time of seizure, apply to a magistrate within whose territorial jurisdiction the seizure was made for an order extending the time during which the substance or product may be detained.

Notice

(2) The notice referred to in subsection (1) shall be served by personal service at least five clear days prior to the day on which the application is to be made to the magistrate or by registered mail at least seven clear days prior to that day and shall specify

- (a) the magistrate to whom the application is to be made;
- (b) the place where and the time when the application is to be heard, which time shall be not later than ten days after service of the notice;

stance ou ce produit peuvent être déplacés et emmagasinés en tout autre lieu sur l'ordre ou avec l'accord d'un inspecteur, aux frais de la personne qui en a demandé le déplacement.

(6) A moins d'y être autorisé par un inspecteur, nul ne doit enlever, modifier ni manipuler de quelque façon une substance ou un produit saisis et retenus par un inspecteur en application du paragraphe (1); mais un inspecteur doit, à la demande de la personne entre les mains de laquelle la substance ou le produit ont été saisis, permettre à cette personne ou à toute personne autorisée par elle d'examiner cette substance ou ce produit et, lorsque cela est matériellement possible, lui en fournir un échantillon.

12. (1) Lorsqu'il n'a pas été intenté de procédure relativement à la contravention ayant donné lieu à la saisie d'une substance ou d'un produit en application du paragraphe 11(1), le Ministre peut, dans les soixante jours qui suivent la date de la saisie et sur signification d'un préavis, conformément au paragraphe (2), au propriétaire de la substance ou du produit ou à la personne qui en avait la possession au moment de la saisie, demander à un magistrat dans le ressort duquel la saisie a été effectuée une ordonnance prolongeant le délai de rétention de cette substance ou de ce produit.

(2) Le préavis mentionné au paragraphe (1) doit être signifié à la personne, cinq jours francs au moins avant la date où la demande doit être présentée au magistrat, ou par courrier recommandé, sept jours francs au moins avant cette date, et doit spécifier

- a) à quel magistrat la demande sera présentée;
- b) où et quand la demande sera entendue, la date d'audition devant se situer dans les dix jours suivant la signification du préavis;

Manipulation  
de la  
substance  
ou du  
produit  
saïs

Demande de  
prolonga-  
tion du délai  
de rétention

Préavis

(c) the substance or product in respect of which the application is to be made; and

(d) the evidence upon which the Minister intends to rely to show why the time during which the substance or product may be detained should be extended.

Order of  
extension  
granted

(3) Where, upon the hearing of an application made under subsection (1), the magistrate is satisfied that the substance or product seized should continue to be detained, he shall order that the substance or product be detained for such additional period of time and upon such conditions relating to the detention for that additional period of time as he deems proper and that upon the expiration of such period of time the substance or product be restored to the person from whom it was seized or to any other person entitled to possession thereof unless before the expiration of such period of time subparagraph 11(4)(b)(i) or (ii) applies.

Order of  
extension  
refused

(4) Where, upon the hearing of an application made under subsection (1), the magistrate is not satisfied that the substance or product seized should continue to be detained, he shall order that the substance or product be restored to the person from whom it was seized or to any other person entitled to possession thereof upon the expiration of sixty days from the day of seizure unless,

(a) before the expiration of such period of time, subparagraph 11(4)(b)(i) or (ii) applies; or

(b) at the time of the hearing, such period of time has then expired in which event he shall order the restoration thereof forthwith to the person from whom it was seized or to any other person entitled to possession thereof.

"Magistrate"  
defined

(5) In this section, "magistrate" means a magistrate as defined in the *Criminal Code*.

c) à quelle substance ou quel produit se rapporte la demande; et

d) quelle preuve le Ministre entend invoquer pour justifier la prolongation du délai de rétention de la substance ou du produit.

Ordonnance  
de  
prolongation

(3) Lorsque, à la suite de l'audition d'une demande présentée en vertu du paragraphe (1), le magistrat est convaincu qu'il y a lieu de ne pas mettre fin à la rétention de la substance ou du produit saisis, il doit ordonner que la substance ou le produit soient retenus pendant tel délai supplémentaire et à telles conditions relatives à la rétention qu'il juge appropriés, et qu'à l'expiration de ce délai la substance ou le produit soient restitués à la personne entre les mains de laquelle ils ont été saisis ou à toute autre personne ayant le droit d'en avoir la possession, à moins que, avant l'expiration de ce délai, les sous-alinéas 11(4)b)(i) ou (ii) ne s'appliquent.

Refus de  
rendre une  
ordonnance  
de  
prolongation

(4) Lorsque, à la suite de l'audition d'une demande présentée en vertu du paragraphe (1), le magistrat n'est pas convaincu qu'il y ait lieu de ne pas mettre fin à la rétention de la substance ou du produit saisis, il doit ordonner que la substance ou le produit soient restitués à la personne entre les mains de laquelle ils ont été saisis ou à toute autre personne ayant le droit d'en avoir la possession, à l'expiration d'un délai de soixante jours à partir de la date de la saisie, à moins que

a) les sous-alinéas 11(4)b)(i) ou (ii) ne s'appliquent avant l'expiration de ce délai; ou que

b) ce délai ne soit arrivé à son terme au moment de l'audition, auquel cas il doit en ordonner la restitution immédiate à la personne entre les mains de laquelle ils ont été saisis ou à toute autre personne ayant le droit d'en avoir la possession.

Définition de  
«magistrat»

(5) Au présent article, «magistrat» désigne le magistrat défini par le *Code criminel*.



## FORFEITURE

Forfeiture  
ou consent

13. (1) Where an inspector has seized any substance or product pursuant to subsection 11(1) and the owner thereof or the person in lawful possession thereof at the time of seizure consents in writing at the request of the inspector to the forfeiture of the substance or product, such substance or product is thereupon forfeited to Her Majesty.

Forfeiture  
by order  
of court

(2) Where a person is convicted of an offence under this Act and any substance or product seized pursuant to subsection 11(1) by means of or in relation to which the offence was committed is then being detained, such substance or product

(a) is, upon such conviction, in addition to any punishment imposed for the offence, forfeited to Her Majesty if such forfeiture is directed by the court; or

(b) shall, upon the expiration of the time for taking an appeal from the conviction or upon the final conclusion of the proceedings, as the case may be, be restored to the person from whom it was seized or to any other person entitled to possession thereof upon such conditions, if any, as may be imposed by order of the court and as, in the opinion of the court, are necessary to avoid the commission of any further offence under this Act.

Articles  
deemed not  
to have been  
seized

(3) For the purposes of subsection (2), any substance or product released from detention pursuant to paragraph 11(4) (a) or (b) shall be deemed not to have been seized pursuant to subsection 11(1).

## GENERAL

Officers,  
etc. of  
corporations

14. Where a corporation commits an offence under section 8 or 17, any officer, director or agent of the corporation who directed, authorized, assented to, acquiesced in or participated in the commission

## CONFISCATION

Confiscation  
par consente-  
ment

13. (1) Lorsqu'un inspecteur a saisi une substance ou un produit en application du paragraphe 11(1) et que, à la demande de l'inspecteur, la personne qui en est propriétaire ou la personne qui en avait légalement la possession au moment de la saisie consent par écrit à sa confiscation, cette substance ou ce produit est immédiatement confisqué au profit de Sa Majesté.

Confiscation  
par ordon-  
nance du  
tribunal

(2) Lorsqu'une personne est déclarée coupable d'une infraction prévue par la présente loi et qu'une substance ou un produit saisis en application du paragraphe 11(1), au moyen ou au sujet desquels l'infraction a été commise, sont alors retenus, la substance ou le produit

a) sont, après cette déclaration de culpabilité, et en sus de toute peine imposée pour l'infraction, confisqués au profit de Sa Majesté si le tribunal l'ordonne; ou

b) doivent, à l'expiration du délai prévu pour porter la condamnation en appel, ou à la fin des procédures, selon le cas, être restitués à la personne entre les mains de laquelle ils ont été saisis ou à toute autre personne ayant le droit d'en avoir la possession, aux conditions, s'il en est, que le tribunal peut fixer par ordonnance et qui, de l'avis de ce dernier, sont nécessaires pour éviter que soit de nouveau commise une infraction prévue par la présente loi.

(3) Aux fins du paragraphe (2), une substance ou un produit restitués en application des alinéas 11(4) a) ou b) sont réputés ne pas avoir été saisis en application du paragraphe 11(1).

## DISPOSITIONS GÉNÉRALES

Articles  
réputés ne  
pas avoir  
été saisis

Dirigeants,  
etc., de  
corporations

14. Lorsqu'une corporation commet une infraction prévue par les articles 8 ou 17, tout dirigeant, administrateur ou mandataire de la corporation qui a ordonné ou autorisé la commission de l'infraction ou y a

of the offence is a party to and guilty of the offence and is liable on conviction to the punishment provided for the offence whether or not the corporation has been prosecuted or convicted.

Proof of  
offence

15. In a prosecution of a person for an offence under section 8, it is sufficient proof of the offence to establish that it was committed by an employee or agent of the accused whether or not the employee or agent is identified or has been prosecuted for the offence, unless the accused establishes that the offence was committed without his knowledge or consent and that he exercised all due diligence to prevent its commission.

Certificate  
of analyst

16. (1) Subject to this section, a certificate of an analyst stating that he has analyzed or examined a substance or product and stating the result of his analysis or examination is admissible in evidence in any prosecution for an offence under section 8 and in the absence of evidence to the contrary is proof of the statements contained in the certificate without proof of the signature or the official character of the person appearing to have signed the certificate.

Attendance  
of analyst

(2) The party against whom a certificate of an analyst is produced pursuant to subsection (1) may, with leave of the court, require the attendance of the analyst for the purposes of cross-examination.

Notice

(3) No certificate shall be received in evidence pursuant to subsection (1) unless the party intending to produce it has given to the party against whom it is intended to be produced reasonable notice of such intention together with a copy of the certificate.

consenti, acquiescé ou participé est complice et coupable de l'infraction et passible, sur déclaration de culpabilité, de la peine prévue pour l'infraction, que la corporation ait ou non été poursuivie ou condamnée.

Preuve de  
l'infraction

15. Dans une poursuite intentée contre une personne pour une infraction prévue à l'article 8, il suffit, pour prouver l'infraction, d'établir qu'elle a été commise par un employé ou un mandataire de l'accusé, que cet employé ou mandataire soit ou non identifié ou qu'il ait été poursuivi ou non pour cette infraction, à moins que cet accusé n'établisse d'une part que l'infraction a été commise sans qu'il le sache ou y consente et d'autre part qu'il s'est dûment appliqué à la prévenir.

Certificat  
d'analyste

16. (1) Sous réserve des dispositions du présent article, un certificat d'un analyste déclarant qu'il a analysé ou examiné une substance ou un produit et indiquant le résultat de son analyse ou examen est admissible en preuve pour toute poursuite relative à une infraction prévue par l'article 8 et, sauf preuve contraire, fait foi des déclarations contenues dans le certificat sans qu'il soit nécessaire de prouver la signature ni la qualité officielle de la personne par laquelle il paraît avoir été signé.

Présence de  
l'analyste

(2) La partie contre laquelle un certificat d'un analyste est produit en application du paragraphe (1) peut, avec l'autorisation du tribunal, exiger la présence de l'analyste pour contre-interrogatoire.

Avis

(3) Aucun certificat ne doit être admis en preuve en application du paragraphe (1) à moins que la partie qui entend le produire n'ait donné à la partie à laquelle elle entend l'opposer un avis suffisant de son intention de le faire, ainsi qu'une copie du certificat.

## OTHER OFFENCES

Other  
offences

17. Every person who contravenes any provision of this Act, other than section 8, or of the regulations is guilty of an offence punishable on summary conviction.

## REGULATIONS

Regulations

18. The Governor in Council may make regulations

(a) prescribing for the purpose of paragraph 8(1)(a) the maximum quantity or concentration of a substance specified in the schedule or of any substance that is a member of a class of substances specified in the schedule that may be released into the environment in the course of any commercial, manufacturing or processing activity;

(b) prescribing for the purpose of paragraph 8(1)(b) the conditions under which a substance specified in the schedule or any substance that is a member of a class of substances specified in the schedule may not be released into the environment in the course of any commercial, manufacturing or processing activity;

(c) prescribing for the purpose of subsection 8(2) any commercial, manufacturing or processing uses in respect of which a substance specified in the schedule or any substance that is a member of a class of substances specified in the schedule may not be imported, manufactured, processed, offered for sale or used;

(d) prescribing for the purpose of subsection 8(1) or (2) any geographical area in respect of a substance specified in the schedule or a class of substances specified in the schedule;

## AUTRES INFRACTIONS

Autres  
infractions

17. Quiconque contrevient à quelque disposition de la présente loi, sauf l'article 8, ou à quelque disposition des règlements est coupable d'une infraction punissable sur déclaration sommaire de culpabilité.

## RÈGLEMENTS

Règlements

18. Le gouverneur en conseil peut établir des règlements

a) fixant, aux fins de l'alinéa 8(1)a), la quantité ou concentration maximale d'une substance figurant sur la liste, ou de toute substance appartenant à une catégorie de substances figurant sur la liste, qui peut être rejetée dans l'environnement dans le cadre d'opérations commerciales, de fabrication ou de traitement;

b) déterminant, aux fins de l'alinéa 8(1)b), les conditions dans lesquelles une substance figurant sur la liste ou toute substance appartenant à une catégorie de substances qui y figure ne peut être rejetée dans l'environnement dans le cadre d'opérations commerciales, de fabrication ou de traitement;

c) déterminant, aux fins du paragraphe 8(2), les usages entrant dans le cadre d'opérations commerciales, de fabrication ou de traitement pour lesquels une substance figurant sur la liste ou toute substance appartenant à une catégorie de substances qui y figure ne peut être importée, fabriquée, traitée, mise en vente ou utilisée;

d) prescrivant, aux fins des paragraphes 8(1) ou (2), une région pour une substance figurant à l'annexe ou une catégorie de substances qui y figure;

e) fixant, aux fins du paragraphe 8(4), à l'égard de tout produit, la quantité ou concentration maximale de toute sub-



(e) prescribing for the purpose of subsection 8(4) in relation to any product the maximum quantity or concentration of any substance specified in the schedule or any substance that is a member of a class of substances specified in the schedule;

(f) respecting methods of sampling and analysis for determining the presence, quantity or concentration of any substance for the purposes of this Act;

(g) respecting the form and manner in which any information required pursuant to a notice under paragraph 4(1)(b) is to be submitted;

(h) respecting any tests required under paragraph 4(1)(c);

(i) requiring any person engaged in the importation, manufacturing or processing of any substance specified in the schedule or any substance that is a member of a class of substances specified in the schedule to maintain books and records and specifying for such purpose the form of such books and records;

(j) respecting the procedure to be followed by any committee appointed under subsection 3(4); and

(k) generally for carrying into effect the purposes and provisions of this Act.

stance figurant à l'annexe ou de toute substance appartenant à une catégorie de substances qui y figure;

f) concernant les méthodes d'échantillonnage et d'analyse ayant pour objet de déterminer la présence, la quantité ou la concentration de toute substance aux fins de la présente loi;

g) concernant la forme et le mode de présentation de tout renseignement exigé dans un avis donné en vertu de l'alinéa 4(1)b);

h) concernant les expériences exigées en vertu de l'alinéa 4(1)c);

i) exigeant que toute personne qui se livre à l'importation, à la fabrication ou à la transformation d'une substance figurant à l'annexe ou d'une substance appartenant à une catégorie de substances qui y figure, tienne des livres et des registres et spécifiant à cet effet la forme de ces livres et registres;

j) concernant la procédure à suivre par tout comité constitué en vertu du paragraphe 3(4); et,

k) en général, pour la réalisation des objets et l'application des dispositions de la présente loi.

#### COMMENCEMENT

Coming into force  
19. This Act shall come into force on a day to be fixed by proclamation.

#### ENTRÉE EN VIGUEUR

19. La présente loi entrera en vigueur à une date qui sera fixée par proclamation. Entrée en vigueur

#### SCHEDULE

1. Chlorobiphenyls that have the molecular formula  $C_{12}H_{10-n}Cl_n$  in which "n" is greater than 2.
2. Dodecachloropentacyclo (5.3.0.0<sup>2,6</sup>.0<sup>3,9</sup>.0<sup>4,8</sup>) decane.

#### ANNEXE

1. Les biphényles chlorés dont la formule moléculaire est  $C_{12}H_{10-n}Cl_n$  où «n» est plus grand que 2.
2. Le dodécachloropentacyclo (5.3.0.0<sup>2,6</sup>.0<sup>3,9</sup>.0<sup>4,8</sup>) décane.

DEPARTMENT OF THE ENVIRONMENT  
and  
DEPARTMENT OF NATIONAL HEALTH  
AND WELFARE

ENVIRONMENTAL CONTAMINANTS ACT

*Environmental Contaminants Board of Review*

Whereas the proposed amendments to the Chlorobiphenyl Regulations No. 1 were published, pursuant to subsection 5(2) of the Environmental Contaminants Act, in Part I of the *Canada Gazette* on December 2, 1978:

Notice is hereby given by the Minister of the Environment and the Minister of National Health and Welfare that:

(a) pursuant to subsection 5(3) of the Act, four notices of objection were filed with the Minister of the Environment, two of which were subsequently withdrawn by the objectors. The two remaining objections, from the Iron Ore Company of Canada, Labrador City, Newfoundland, and the Eurocan Pulp and Paper Company Limited, Kitimat, British Columbia, relate to subsection 3(f) of the proposed amendments;

(b) pursuant to subsection 6(1) of the Act, an Environmental Contaminants Board of Review is required to be established and the proposed regulation amendments and the notices of objection must be referred to the Board;

(c) the Board of Review will consist of a Chairman and two members;

(d) subsection 6(2) of the Environmental Contaminants Act states: A Board shall inquire into the nature and extent of the danger posed by the substance or class of substances to which any proposed order and regulations or proposed regulations referred to it under subsection (1) apply and in particular shall inquire into the matters described in subparagraphs 3(3)(a)(i) to (v), and shall give the person filing the notice of objection and any other interested or knowledgeable person a reasonable opportunity of appearing before the Board, presenting evidence and making representations to it.

The Board will therefore, in considering the notices of objection from the Iron Ore Company of Canada and the Eurocan Pulp and Paper Company Limited, inquire into the nature and extent of the danger posed by the continued use of chlorobiphenyls (PCB) as new filling or as make-up fluid in the servicing or maintenance of electrical transformers or associated switchgear;

(e) subsection 6(3) of the Act states:

For the purpose of any inquiry under subsection (2), a Board has and may exercise all the powers of a commissioner under Part I of the Inquiries Act;

(f) subsection 6(4) of the Act states:

A Board, as soon as possible after conclusion of the inquiry, shall submit a report to the Minister (of the Environment) and the Minister of National Health and Welfare, together with its recommendations and all evidence that was before the Board;

MINISTÈRE DE L'ENVIRONNEMENT  
et  
MINISTÈRE DE LA SANTÉ NATIONALE  
ET DU BIEN-ÊTRE SOCIAL

LOI SUR LES CONTAMINANTS DE  
L'ENVIRONNEMENT

*Commission d'étude sur les contaminants de l'environnement*

Attendu que le projet de modification du règlement n° 1 concernant les biphenyles polychlorés a été publié, conformément au paragraphe 5(2) de la *Loi sur les contaminants de l'environnement*, dans la *Gazette du Canada* Partie I, le 2 décembre 1978:

Avis est par les présentes donné par le ministre de l'Environnement et le ministre de la Santé nationale et du Bien-être social que:

a) conformément au paragraphe 5(3) de la Loi, quatre avis d'opposition ont été déposés auprès du ministre de l'Environnement, dont deux ont par la suite été retirés. Les deux autres, l'un de l'Iron Ore Company of Canada, Labrador City (Terre-Neuve), et l'autre de l'Eurocan Pulp and Paper Company Limited, Kitimat (Colombie-Britannique), ont trait au paragraphe 3 f) du projet de modification;

b) conformément au paragraphe 6(1) de la Loi, une Commission d'étude sur les contaminants de l'environnement doit être établie et saisie du projet de modification du règlement et des avis d'opposition;

c) la Commission d'étude sera composée d'un président et de deux membres;

d) le paragraphe 6(2) de la *Loi sur les contaminants de l'environnement* précise: la Commission doit faire enquête sur la nature et l'étendue du danger que représente la substance ou catégorie de substances à laquelle s'applique le projet de règlements ou le projet de décret et de règlements dont elle est saisie en vertu du paragraphe (1) et notamment sur les points visés aux sous-alinéas 3(3)a)(i) à (v), et elle doit donner à la personne qui a déposé l'avis d'opposition et à toute personne intéressée ou bien informée la possibilité raisonnable de comparaître devant elle et de lui présenter une preuve et des observations.

Par conséquent, lors de son étude des avis d'opposition déposés par l'Iron Ore Company of Canada et l'Eurocan Pulp and Paper Company Limited, la Commission examinera la nature et l'étendue du danger qu'entraîne l'utilisation continue des biphenyles polychlorés (PCB) en tant que nouveau fluide de remplissage ou d'appoint lors de l'entretien des transformateurs d'électricité ou de l'appareillage connexe;

e) le paragraphe 6(3) de la Loi précise:

Aux fins d'une enquête effectuée en vertu du paragraphe (2), la Commission possède et peut exercer tous les pouvoirs d'un commissaire sous le régime de la Partie I de la *Loi sur les enquêtes*;

f) le paragraphe 6(4) de la Loi précise:

Toute Commission doit, aussitôt que possible après la fin de son enquête, présenter un rapport au ministre (de l'Environnement) et au ministre de la Santé nationale et du Bien-être social, ainsi que ses recommandations et l'ensemble de la preuve dont elle a pris connaissance.

(g) subsection 6(5) of the Act states:

The report of the Board shall, within thirty days after its receipt by the Minister (of the Environment) and the Minister of National Health and Welfare, be made public unless the Board states in writing that it believes the public interest would be better served by withholding publication, in which case the Minister (of the Environment) and the Minister of National Health and Welfare may decide whether the report, either in whole or in part, should be made public;

(h) any person wishing to appear before the Board to present evidence or make representation to the Board shall, in writing and within sixty days following publication of this notice, advise "PCB-Board of Review" c/o Contaminants Control Branch, Environmental Protection Service, Environment Canada, Ottawa, Ontario K1A 1C8;

(i) the Board of Review will commence hearings at 10.00 a.m. on December 10, 1979, in the Board Room, 3rd floor, Tower "D", Lester B. Pearson Building, 125 Sussex Drive, Ottawa, Ontario.

JOHN FRASER

*Minister of the Environment*

DAVID CROMBIE

*Minister of National Health and Welfare*

[40-1-o]

g) le paragraphe 6(5) de la Loi précise:

Le rapport de la Commission doit être rendu public dans les trente jours de sa réception par le ministre (de l'Environnement) et le ministre de la Santé nationale et du Bien-être social, à moins que la Commission ne déclare par écrit qu'elle croit que l'intérêt public serait mieux servi si le rapport n'était pas publié, auquel cas le ministre (de l'Environnement) et le ministre de la Santé nationale et du Bien-être social peuvent décider s'il y a lieu ou non de le rendre public, en totalité ou en partie;

h) toute personne souhaitant comparaître devant la Commission afin de lui présenter une preuve ou des observations devra communiquer, par écrit, dans les soixante jours suivant la publication du présent avis, à la «Commission d'étude» a/s de la Direction des contaminants de l'environnement, Service de la protection de l'environnement, Environnement Canada, Ottawa (Ontario) K1A 1C8;

i) la Commission d'étude tiendra sa première audience le 10 décembre 1979, à 10 heures, dans la chambre du conseil située dans l'immeuble Lester B. Pearson, Tour «D», 3<sup>e</sup> étage, 125, promenade Sussex, Ottawa (Ontario).

*Le ministre de l'Environnement*

JOHN FRASER

*Le ministre de la Santé nationale et du Bien-être social*

DAVID CROMBIE

[40-1-o]



DEPARTMENT OF THE ENVIRONMENT  
ENVIRONMENTAL CONTAMINANTS ACT

*Proposed Order and Regulations respecting Chlorobiphenyls*

Notice is hereby given pursuant to subsection 5(2) of the Environmental Contaminants Act that the Minister of the Environment and the Minister of National Health and Welfare

(a) have consulted with the governments of the provinces and appropriate departments and agencies of the Govern-

MINISTÈRE DE L'ENVIRONNEMENT

LOI SUR LES CONTAMINANTS DE L'ENVIRONNEMENT

*Projet de décret et de règlement sur les biphényles chlorés*

Avis est donné par la présente que, conformément au paragraphe 5(2) de la *Loi sur les contaminants de l'environnement*, les ministres de l'Environnement et de la Santé nationale et du Bien-être social

a) ont consulté les gouvernements provinciaux, ainsi que les ministères et organismes appropriés du gouvernement du

ment of Canada pursuant to subsection 5(1) of that Act in order to determine whether the significant danger that the entry of chlorobiphenyls into the environment will constitute in Canada to human health or the environment will be eliminated by any action taken or proposed to be taken pursuant to any other law;

(b) are satisfied that the significant danger referred to in paragraph (a) will not be eliminated by any action taken or proposed to be taken pursuant to any other law; and

(c) propose to recommend to the Governor General in Council that an order amending the schedule to the Environmental Contaminants Act by adding thereto chlorobiphenyls that have the molecular formula  $C_{12}H_{10-n}Cl_n$  in which "n" is greater than 2 be made under subsection 7(1) of that Act and that the annexed Regulations prescribing certain uses in respect of which chlorobiphenyls may not be used be made under paragraph 18(c) of that Act.

Any person having an interest therein may within sixty days of the publication of this notice file a notice of objection with the undersigned.

Given at Ottawa, this 26th day of February, 1977

ROMÉO LEBLANC  
Minister of the Environment

# REGULATIONS PRESCRIBING CERTAIN USES IN RESPECT OF WHICH CERTAIN CHLOROBIPHENYLS MAY NOT BE USED

## Short Title

1. These Regulations may be cited as the *Chlorobiphenyl Regulations No. 1*.

## Interpretation

2. In these Regulations,

"Act" means the *Environmental Contaminants Act*;

"chlorobiphenyls" means those chlorobiphenyls that have the molecular formula  $C_{12}H_{10-n}Cl_n$  in which "n" is greater than 2;

"Minister" means the Minister of the Environment.

## Prescription of Uses

3. For the purpose of subsection 8(2) of the Act, the following commercial, manufacturing and processing uses are hereby prescribed, effective June 1, 1977, as uses in respect of which chlorobiphenyls may not be used:

(a) use in the operation, servicing or maintenance of any product, machinery or equipment other than:

(i) electrical capacitors, electrical transformers and associated switchgear and machinery or equipment used to manufacture electrical capacitors, electrical transformers and associated switchgear,

Canada, conformément au paragraphe 5(1) de la Loi précitée, afin de déterminer si le danger important que constitue pour la santé ou l'environnement l'introduction de biphényles chlorés dans l'environnement sera éliminé par des mesures prises en application de quelque autre loi;

b) sont convaincus que le danger dont il est question à l'alinéa a) ne sera pas éliminé par des mesures prises en application de quelque autre loi; et

c) se proposent de recommander au gouverneur général en conseil qu'un décret modifiant l'annexe de la *Loi sur les contaminants de l'environnement* en y ajoutant les biphényles chlorés dont la formule moléculaire est  $C_{12}H_{10-n}Cl_n$  où n est plus grand que deux, soit pris en vertu du paragraphe 7(1) de la Loi, et que le règlement ci-joint interdisant certains emplois de biphényles chlorés soit établi en vertu de l'alinéa 18c) de la Loi.

Tout intéressé peut, dans les soixante jours de la publication du présent avis, déposer un avis d'opposition entre les mains du soussigné.

Avis donné à Ottawa, ce 26<sup>e</sup> jour de février 1977

Le ministre de l'Environnement  
ROMÉO LEBLANC

# RÈGLEMENT INTERDISANT CERTAINS EMPLOIS DE CERTAINS BIPHÉNYLES CHLORÉS

## Titre abrégé

1. Le présent règlement peut être cité sous le titre: *Règlement n° 1 sur les biphényles chlorés*.

## Interprétation

2. Dans le présent règlement,

«biphényles chlorés» désigne ceux dont la formule moléculaire est  $C_{12}H_{10-n}Cl_n$  où n est plus grand que 2 (*Chlorobiphenyls*);

«Loi» désigne la *Loi sur les contaminants de l'environnement* (Act);

«Ministre» désigne le ministre de l'Environnement (*Minister*).

## Emplois interdits

3. Aux fins du paragraphe 8(2) de la Loi, les emplois suivants des biphényles chlorés dans le commerce, la fabrication et le traitement sont par la présente interdits à compter du 1<sup>er</sup> juin 1977:

a) les emplois dans l'exploitation, la réparation et l'entretien de tout produit, machinerie ou équipement sauf:

(i) les condensateurs électriques, les transformateurs électriques et l'appareillage connexe et la machinerie ou l'équipement servant à leur fabrication;

(ii) heat transfer equipment, hydraulic equipment and vapour diffusion pumps that were designed to use chlorobiphenyls and were in use in Canada before March 1, 1977, and

(iii) machinery or equipment the operation of which is intended to destroy the chemical structures of chlorobiphenyls; and

(b) use as a constituent of any machinery, equipment or product manufactured in or imported into Canada after June 1, 1977, other than electrical capacitors, electrical transformers and associated switchgear.

[9-1-o]

(ii) tout matériel de transfert de la chaleur, tout matériel hydraulique ou toute pompe à diffusion de vapeur utilisés au Canada avant le 1<sup>er</sup> mars 1977 et dont la conception exige l'emploi de biphényles chlorés; et

(iii) la machinerie ou l'équipement destinés à détruire la structure chimique des biphényles chlorés; et

b) les emplois dans les produits, la machinerie ou l'équipement fabriqués ou importés au Canada après le 1<sup>er</sup> juin 1977, sauf les condensateurs électriques, les transformateurs électriques et l'appareillage connexe.

[9-1-o]



Registration  
SOR/77-733 7 September, 1977

Enregistrement  
DORS/77-733 7 septembre 1977

## ENVIRONMENTAL CONTAMINANTS ACT

## LOI SUR LES CONTAMINANTS DE L'ENVIRONNEMENT

### Schedule to the Act, amendment

### Annexe de la Loi—Modification

P.C. 1977-2469 31 August, 1977

C.P. 1977-2469 31 août 1977

Whereas a copy of the proposed Order substantially in the form set out in the schedule hereto, was published in the *Canada Gazette* Part I on February 26, 1977;

Vu qu'une copie du décret proposé essentiellement dans la forme exposée à l'annexe ci-après a été publiée dans la *Gazette du Canada* (Partie I) le 26 février 1977;

And Whereas no notice of objection was filed with the Minister pursuant to subsection 5(3) of the Environmental Contaminants Act.

Et vu qu'aucune objection n'a été formulée au ministre en vertu du paragraphe 5(3) de la Loi sur les contaminants de l'environnement.

Therefore, His Excellency the Governor General in Council, on the recommendation of the Minister of Fisheries and the Environment and the Minister of National Health and Welfare, pursuant to subsection 7(1) of the Environmental Contaminants Act, being satisfied that chlorobiphenyls is entering or will enter the environment in a quantity or concentration or under conditions that he is satisfied constitute or will constitute a significant danger in Canada or any geographical area thereof to human health or environment, is pleased hereby to amend the Schedule to the Act in accordance with the schedule hereto.

A ces causes, sur avis conforme du ministre des Pêcheries et de l'Environnement ainsi que du ministre de la Santé nationale et du Bien-être social et en vertu du paragraphe 7(1) de la Loi sur les contaminants de l'environnement, il plaît à Son Excellence le Gouverneur général en conseil, lequel est convaincu que les biphényles chlorés contaminent ou contamineront l'environnement en une quantité ou une concentration ou dans des conditions qui représentent ou représenteront pour le Canada ou toute région géographique du Canada, un danger réel pour la santé humaine ou l'environnement, de modifier par les présentes l'annexe de la Loi conformément à l'annexe ci-après.

## SCHEDULE

## ANNEXE

1. The Schedule to the *Environmental Contaminants Act* is amended by adding thereto the following class of substances:

1. A l'annexe de la *Loi sur les contaminants de l'environnement* est ajoutée la catégorie de substances suivante:

"1. Chlorobiphenyls that have the molecular formula  $C_{12}H_{10-n}Cl_n$  in which "n" is greater than 2."

"1. Les biphényles chlorés dont la formule moléculaire est  $C_{12}H_{10-n}Cl_n$  où «n» est plus grand que 2."

Registration  
SOR/77-734 7 September, 1977

## ENVIRONMENTAL CONTAMINANTS ACT

### Chlorobiphenyl Regulations No. 1

P.C. 1977-2470 31 August, 1977

Whereas a copy of the proposed Regulation substantially in the form set out in the schedule hereto, was published in the *Canada Gazette* Part I on February 26, 1977;

And Whereas no notice of objection was filed with the Minister pursuant to subsection 5(3) of the Environmental Contaminants Act.

Therefore, His Excellency the Governor General in Council, on the recommendation of the Minister of Fisheries and the Environment and the Minister of National Health and Welfare, pursuant to paragraph 18(c) of the Environmental Contaminants Act, is pleased hereby to make the annexed Regulations prescribing certain uses in respect of which certain chlorobiphenyls may not be used.

#### REGULATIONS PRESCRIBING CERTAIN USES IN RESPECT OF WHICH CERTAIN CHLOROBIPHENYLS MAY NOT BE USED

##### *Short Title*

1. These Regulations may be cited as the *Chlorobiphenyl Regulations No. 1*.

##### *Interpretation*

2. In these Regulations,  
 "Act" means the *Environmental Contaminants Act*;  
 "chlorobiphenyls" means those chlorobiphenyls that have the molecular formula  $C_{12}H_{10-n}Cl_n$  in which "n" is greater than 2;  
 "Minister" means the Minister of the Environment.

##### *Prescription of Uses*

3. For the purpose of subsection 8(2) of the Act, the following commercial, manufacturing and processing uses are hereby prescribed effective September 1, 1977, as uses in respect of which chlorobiphenyls may not be used:

- (a) use in the operation, servicing or maintenance of any product, machinery or equipment other than
  - (i) electrical capacitors, electrical transformers and associated switchgear and machinery or equipment used to manufacture electrical capacitors, electrical transformers and associated switchgear,
  - (ii) heat transfer equipment, hydraulic equipment and vapour diffusion pumps that were designed to use

Enregistrement  
DORS/77-734 7 septembre 1977

## LOI SUR LES CONTAMINANTS DE L'ENVIRONNEMENT

### Règlement sur les biphényles chlorés (n° 1)

C.P. 1977-2470 31 août 1977

Vu qu'une copie du Règlement proposé essentiellement dans la forme exposée à l'annexe ci-après a été publiée dans la *Gazette du Canada* (Partie I) le 26 février 1977;

Et vu qu'aucune objection n'a été formulée au ministre en vertu du paragraphe 5(3) de la Loi sur les contaminants de l'environnement.

A ces causes, sur avis conforme du ministre des Pêcheries et de l'Environnement ainsi que du ministre de la Santé nationale et du Bien-être social et en vertu de l'alinéa 18 c) de la Loi sur les contaminants de l'environnement, il plaît à Son Excellence le Gouverneur général en conseil de mettre en vigueur le Règlement ci-annexé interdisant certains emplois de certains biphényles chlorés.

#### RÈGLEMENT INTERDISANT CERTAINS EMPLOIS DE CERTAINS BIPHÉNYLES CHLORÉS

##### *Titre abrégé*

1. *Règlement sur les biphényles chlorés (n° 1).*

##### *Définitions*

2. On entend par  
 «biphényles chlorés» les biphényles dont la formule moléculaire est  $C_{12}H_{10-n}Cl_n$  où «n» est plus grand que 2,  
 «loi» la *Loi sur les contaminants de l'environnement*,  
 «ministre» le ministre de l'Environnement.

##### *Emplois interdits*

3. Pour l'application du paragraphe 8(2) de la Loi, les emplois suivants des biphényles chlorés dans le commerce, la fabrication et la transformation sont interdits à compter du 1<sup>er</sup> septembre 1977:

- a) les emplois dans l'exploitation, la réparation et l'entretien de tout produit, machinerie ou équipement sauf:
  - (i) les condensateurs électriques, les transformateurs électriques et l'appareillage connexe et la machinerie ou l'équipement servant à leur fabrication,
  - (ii) tout matériel de transfert de la chaleur, tout matériel hydraulique ou toute pompe à diffusion de vapeur utilisés au Canada avant le 1<sup>er</sup> mars 1977 et dont la conception exige l'emploi de biphényles chlorés et

chlorobiphenyls and were in use in Canada before March 1, 1977, and

(iii) machinery or equipment, the operation of which is intended to destroy the chemical structure of chlorobiphenyls; and

(b) use as a constituent of any machinery, equipment or product manufactured in or imported into Canada after September 1, 1977 other than electrical capacitors, electrical transformers and associated switchgear.

(iii) la machinerie ou l'équipement destinés à détruire la structure chimique des biphenyles chlorés et

b) les emplois dans les produits, la machinerie ou l'équipement fabriqués ou importés au Canada après le 1<sup>er</sup> septembre 1977, sauf les condensateurs électriques, les transformateurs électriques et l'appareillage connexe.



DEPARTMENT OF FISHERIES AND THE  
ENVIRONMENT  
ENVIRONMENTAL CONTAMINANTS ACT

*Proposed Amendment to Chlorobiphenyl Regulations No. 1*

Notice is hereby given, pursuant to subsection 5(2) of the Environmental Contaminants Act, that the Minister of the Environment and the Minister of National Health and Welfare

(a) have consulted with the governments of the provinces and appropriate departments and agencies of the Government of Canada pursuant to subsection 5(1) of that Act in order to determine whether the significant danger that the entry of chlorobiphenyls into the environment will constitute in Canada to human health or the environment will be eliminated by any action taken or proposed to be taken pursuant to any other law;

(b) are satisfied that the significant danger referred to in paragraph (a) will not be eliminated by any action taken or proposed to be taken pursuant to any other law; and

(c) propose to recommend to the Governor General in Council that Chlorobiphenyl Regulations No. 1 made by Order in Council P.C. 1977-2470 of 31 August, 1977 be amended pursuant to paragraph 18(c) of the Environmental Contaminants Act to further restrict the use of chlorobiphenyls in accordance with the following schedule.

Any person having an interest therein may within sixty days of the publication of this notice file a notice of objection with the undersigned.

Given at Ottawa, this seventh day of November, 1978

LEN MARCHAND  
Minister of the Environment

MINISTÈRE DES PÊCHES ET DE  
L'ENVIRONNEMENT

LOI SUR LES CONTAMINANTS DE L'ENVIRONNEMENT

*Projet de modification au Règlement sur les biphényles chlorés (n° 1)*

Avis est par les présentes donné, conformément au paragraphe 5(2) de la *Loi sur les contaminants de l'environnement*, que le ministre de l'Environnement et le ministre de la Santé nationale et du Bien-être social

a) ont consulté les gouvernements des provinces ainsi que les ministères et organismes compétents du gouvernement du Canada, selon le paragraphe 5(1) de ladite Loi, afin de déterminer si le danger réel que constitue pour la santé ou l'environnement la présence des biphényles chlorés dans l'environnement au Canada, sera éliminé par des mesures prises ou projetées en application de quelque autre loi,

b) sont convaincus que le danger visé à l'alinéa a) ne sera pas éliminé par les mesures en question, et

c) se proposent de recommander au gouverneur général en conseil qu'il modifie, conformément à l'alinéa 18c) de la *Loi sur les biphényles chlorés (n° 1)*, le *Règlement sur les biphényles chlorés (n° 1)* établi par le décret C.P. 1977-2470 du 31 août 1977, afin de réduire davantage l'emploi des biphényles chlorés.

Tout intéressé peut, dans les soixante jours de la publication de cet avis, déposer un avis d'opposition auprès du soussigné.

Ottawa, ce 7<sup>e</sup> jour de novembre 1978

Le ministre d'État (environnement)  
LEN MARCHAND

## SCHEDULE

1. Section 3 of the Chlorobiphenyl Regulations No. 1 is revoked and the following substituted therefor:

"3. For the purpose of subsection 8(2) of the Act, the following commercial, manufacturing and processing uses are hereby prescribed as uses in respect of which chlorobiphenyls may not be used:

(a) effective January 1, 1979, use in the operation of any product, machinery or equipment other than

(i) electrical capacitors, electrical transformers and associated switchgear;

(ii) heat transfer equipment, hydraulic equipment, electromagnets, and vapour diffusion pumps that were designed to use chlorobiphenyls and were in use in Canada before March 1, 1977; and

(iii) machinery or equipment, the operation of which is intended to destroy the chemical structure of chlorobiphenyls;

(b) effective January 1, 1979, use in the operation of electromagnets that are used to handle food, animal feed or anything intended to be added to food or animal feed for any purpose whatsoever;

(c) use as a constituent of any product, machinery or equipment manufactured in or imported into Canada after September 1, 1977, other than electrical capacitors, electrical transformers and associated switchgear;

(d) use as a constituent of electrical capacitors, electrical transformers and associated switchgear manufactured in or imported into Canada after January 1, 1979;

(e) use, after January 1, 1979, in the servicing or maintenance of any product, machinery or equipment, other than electrical transformers and associated switchgear; and

(f) use, after January 1, 1979, as new filling or as make-up fluid in the servicing or maintenance of any electrical transformer or associated switchgear."

[48-1-o]

## ANNEXE

1. L'article 3 du *Règlement n° 1 sur les biphényles chlorés* est ainsi remplacé:

«3. Aux fins du paragraphe 8(2) de la Loi, les emplois suivants des biphényles chlorés dans les opérations commerciales, la fabrication et la transformation sont interdits:

a) à compter du 1<sup>er</sup> janvier 1979, dans l'exploitation de tout produit, machinerie ou équipement sauf:

(i) les condensateurs électriques, les transformateurs électriques et l'appareillage connexe;

(ii) l'équipement de transfert de chaleur, l'équipement hydraulique, les électro-aimants et les pompes à diffusion de vapeur conçus pour utiliser des biphényles chlorés et mis en service au Canada avant le 1<sup>er</sup> mars 1977;

(iii) la machinerie ou l'équipement destinés à détruire la structure chimique des biphényles chlorés;

b) à compter du 1<sup>er</sup> janvier 1979, dans l'exploitation d'électro-aimants qui servent à manutentionner les aliments destinés à l'homme et aux animaux ou leurs additifs;

c) dans les produits, la machinerie ou l'équipement fabriqués ou importés au Canada après le 1<sup>er</sup> septembre 1977, sauf les condensateurs électriques, les transformateurs électriques et l'appareillage connexe;

d) dans les condensateurs électriques, les transformateurs électriques et l'appareillage connexe fabriqués ou importés au Canada après le 1<sup>er</sup> janvier 1979;

e) après le 1<sup>er</sup> janvier 1979, dans la réparation et l'entretien des produits, de la machinerie ou de l'équipement autres que les transformateurs électriques et l'appareillage connexe; et

f) après le 1<sup>er</sup> janvier 1979, comme nouveau fluide de remplissage ou comme fluide d'appoint pour la réparation ou l'entretien des transformateurs électriques et l'appareillage connexe.»

[48-1-o]



Environment  
Canada

Environnement  
Canada

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Environmental  
Protection

Protection de  
l'environnement

Ottawa, Ontario  
K1A 1C8

Your file    Votre référence

Our file    Notre référence

January 31, 1980

Professor Maxwell Cohen  
Chairman, PCB Board of Review  
1302 - 200 Rideau Terrace  
Ottawa, Ontario  
K1M 0Z3

Dear Professor Cohen:

As mentioned in our discussions with the PCB Board of Review, the Department of the Environment desires to make some minor changes to the proposed amendment to the existing Chlorobiphenyl Regulations No. 1.

A copy of the proposed amendment as published on December 2, 1978, and a copy of a revised amendment illustrating the suggested changes are attached for the Board's review and consideration.

The first change would be the inclusion, under Section 2 of the Regulations, of a definition of "electrical transformer" to clarify the use and servicing of transformer/rectifier assemblies installed in a common enclosure. Whereas it could be interpreted that the use and servicing of this equipment are prohibited under PCB Regulations No. 1 as well as the proposed amendment, and whereas this equipment shares a common dielectric (PCB) and it was not our intention to prohibit its use and servicing, the definition would appear necessary in order to permit its use and servicing and clarify our original intention.

The implementation date of the regulations will require amending. As Dr. Brydon explained to the Board (page 160 of the transcript of the public hearings), promulgation activities are time consuming. Since the regulations cannot be retroactive, it would be necessary to provide adequate time for processing them through PCO and arranging for publication in Part II; consequently, we plan to change the date of implementation of the regulations from January 1, 1979, to July 1, 1980.

In subsections 3(a)(i) and 3(c), (d), (e) and (f), it is suggested that "associated switchgear" be changed to "associated electrical equipment," as this latter description more adequately defines the type of associated transformer equipment that may be used and serviced.



The final suggested change is the inclusion of "electromagnets" in subsections 3(e) and (f) of the amendment. On page 21 of the transcript of the Board's public hearings, Dr. Brydon explained that the proposed amendment was based on the need to prohibit the use of PCB-filled electromagnets over food and feed products, as well as our intention to permit their use over coal conveyors. An inconsistency in the proposed regulation amendment had been identified. Specifically, it is inconsistent to permit the use of chlorobiphenyls in certain electromagnets under subsection 3(a)(ii) while prohibiting the maintenance of these electromagnets under subsection 3(e). We now feel that electromagnets should be treated no differently than electrical transformers. Whereas it was not our intention deliberately to exclude these units from servicing or maintenance, and whereas electromagnets are similar to electrical transformers, are sealed units, and are relatively safe in use over conveyor belts feeding coal into high temperature furnaces in power plants, we plan to revise the proposed amendments to permit the servicing or maintenance of electromagnets under subsection 3(e), and prohibit the use of chlorobiphenyls as new filling or as make-up fluid in the servicing or maintenance of electromagnets under subsection 3(f).

As the Board is aware, prior to the public hearing, copies of the four original notices of objection and the correspondence which resulted in the Ministerial undertakings to make these changes to the proposed regulation amendment were furnished to the Board.

I am pleased to confirm that we are in agreement with your recommendation that subsection 3(a)(ii) of the proposed amendments to Chlorobiphenyl Regulations No. 1 be amended by changing the March 1, 1977 to September 1, 1977, to maintain consistency with subsection 3(e).

In the development of these changes we have given careful consideration to certain principles. Some of these considerations are outlined below for the Board's information.

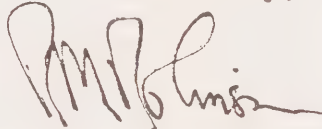
We have satisfied ourselves that the environmental significance of the changes is such that the integrity of the amendment proposed in the December 2, 1978 issue of the Part I Canada Gazette is preserved. In other words, the proposed changes would not result in any appreciable reduction in protection for the environment.

One of our concerns is that we should be allowed the flexibility to make minor technical adjustments to proposed regulations without requiring the repetition of the full proposal process. Similarly changes recommended by a Board of Review would call for a judgement by the government on whether the impact of those recommended changes, with which it agreed, should be regarded as minor or major revisions to the proposed regulations. It is

therefore necessary to provide some flexibility for minor technical adjustments to the proposed regulations in the event that additional knowledge is forthcoming between the initial publication of the proposed regulations and its promulgation. We fully recognize that such flexibility must be used in a manner which is seen to be the result of expert judgement and not be used as a means to include major changes without reasonable opportunity for public discussion.

In order to avoid further delay in publishing and enacting the amended regulations, we would greatly appreciate the Board's review and consideration of these changes to determine whether the Board views them as being desirable or necessary for inclusion as part of a logical program of control of PCBs.

Yours sincerely,

A handwritten signature in dark ink, appearing to read 'R.M. Robinson', with a stylized flourish at the end.

R.M. Robinson  
Assistant Deputy Minister

1. Section 2 of the Chlorobiphenyl Regulations No. 1 is revoked and the following substituted therefore:

"2. In these Regulations

'Act' means the Environmental Contaminants Act;

'chlorobiphenyls' means those chlorobiphenyls that have the molecular formula  $C_{12}H_{10-n}Cl_n$  in which "n" is greater than 2.

'electrical transformers' includes transformer/rectifier assemblies installed in a common enclosure;

'Minister' means the Minister of the Environment."

2. Section 3 of the Chlorobiphenyl Regulations No. 1 is revoked and the following substituted therefore:

"3. For the purpose of subsection 8(2) of the Act, the following commercial, manufacturing and processing uses are hereby prescribed as uses in respect of which chlorobiphenyls may not be used:

(a) effective July 1, 1980, use in the operation of any product, machinery or equipment other than

(i) electrical capacitors, electrical transformers and associated electrical equipment;

(ii) heat transfer equipment, hydraulic equipment, electromagnets, and vapour diffusion pumps that were designed to use chlorobiphenyls and were in use in Canada before September 1, 1977; and

(iii) machinery or equipment, the operation of which is intended to destroy the chemical structure of chlorobiphenyls;

(b) effective July 1, 1980, use in the operation of electromagnets that are used to handle food, animal feed or anything intended to be added to food or animal feed for any purpose whatsoever;

(c) use as a constituent of any product, machinery or equipment manufactured in or imported into Canada after September 1, 1977, other than electrical capacitors, electrical transformers and associated electrical equipment;

(d) use as a constituent of electrical capacitors, electrical transformers and associated electrical equipment manufactured in or imported into Canada after July 1, 1980;

(e) use, after July 1, 1980, in the servicing or maintenance of any product, machinery or equipment, other than electromagnets, electrical transformers and associated electrical equipment; and

(f) use, after July 1, 1980, as new filling or as make-up fluid in the servicing or maintenance of any electromagnet, electrical transformer or associated electrical equipment."



DEPARTMENT OF FISHERIES AND THE  
ENVIRONMENT  
ENVIRONMENTAL CONTAMINANTS ACT

*Proposed Amendment to Chlorobiphenyl Regulations No. 1*

Notice is hereby given, pursuant to subsection 5(2) of the Environmental Contaminants Act, that the Minister of the Environment and the Minister of National Health and Welfare

(a) have consulted with the governments of the provinces and appropriate departments and agencies of the Government of Canada pursuant to subsection 5(1) of that Act in order to determine whether the significant danger that the entry of chlorobiphenyls into the environment will constitute in Canada to human health or the environment will be eliminated by any action taken or proposed to be taken pursuant to any other law;

(b) are satisfied that the significant danger referred to in paragraph (a) will not be eliminated by any action taken or proposed to be taken pursuant to any other law; and

(c) propose to recommend to the Governor General in Council that Chlorobiphenyl Regulations No. 1 made by Order in Council P.C. 1977-2470 of 31 August, 1977 be amended pursuant to paragraph 18(c) of the Environmental Contaminants Act to further restrict the use of chlorobiphenyls in accordance with the following schedule.

Any person having an interest therein may within sixty days of the publication of this notice file a notice of objection with the undersigned.

Given at Ottawa, this seventh day of November, 1978

LEN MARCHAND  
Minister of the Environment

MINISTÈRE DES PÊCHES ET DE  
L'ENVIRONNEMENT

LOI SUR LES CONTAMINANTS DE L'ENVIRONNEMENT

*Projet de modification au Règlement sur les biphényles chlorés (n° 1)*

Avis est par les présentes donné, conformément au paragraphe 5(2) de la *Loi sur les contaminants de l'environnement*, que le ministre de l'Environnement et le ministre de la Santé nationale et du Bien-être social

a) ont consulté les gouvernements des provinces ainsi que les ministères et organismes compétents du gouvernement du Canada, selon le paragraphe 5(1) de ladite Loi, afin de déterminer si le danger réel que constitue pour la santé ou l'environnement la présence des biphényles chlorés dans l'environnement au Canada, sera éliminé par des mesures prises ou projetées en application de quelque autre loi,

b) sont convaincus que le danger visé à l'alinéa a) ne sera pas éliminé par les mesures en question, et

c) se proposent de recommander au gouverneur général en conseil qu'il modifie, conformément à l'alinéa 18c) de la *Loi sur les biphényles chlorés (n° 1)*, le *Règlement sur les biphényles chlorés (n° 1)* établi par le décret C.P. 1977-2470 du 31 août 1977, afin de réduire davantage l'emploi des biphényles chlorés.

Tout intéressé peut, dans les soixante jours de la publication de cet avis, déposer un avis d'opposition auprès du soussigné.

Ottawa, ce 7<sup>e</sup> jour de novembre 1978

Le ministre d'État (environnement)  
LEN MARCHAND

## SCHEDULE

1. Section 3 of the Chlorobiphenyl Regulations No. 1 is revoked and the following substituted therefor:

"3. For the purpose of subsection 8(2) of the Act, the following commercial, manufacturing and processing uses are hereby prescribed as uses in respect of which chlorobiphenyls may not be used:

(a) effective January 1, 1979, use in the operation of any product, machinery or equipment other than

(i) electrical capacitors, electrical transformers and associated switchgear;

(ii) heat transfer equipment, hydraulic equipment, electromagnets, and vapour diffusion pumps that were designed to use chlorobiphenyls and were in use in Canada before March 1, 1977; and

(iii) machinery or equipment, the operation of which is intended to destroy the chemical structure of chlorobiphenyls;

(b) effective January 1, 1979, use in the operation of electromagnets that are used to handle food, animal feed or anything intended to be added to food or animal feed for any purpose whatsoever;

(c) use as a constituent of any product, machinery or equipment manufactured in or imported into Canada after September 1, 1977, other than electrical capacitors, electrical transformers and associated switchgear;

(d) use as a constituent of electrical capacitors, electrical transformers and associated switchgear manufactured in or imported into Canada after January 1, 1979;

(e) use, after January 1, 1979, in the servicing or maintenance of any product, machinery or equipment, other than electrical transformers and associated switchgear; and

(f) use, after January 1, 1979, as new filling or as make-up fluid in the servicing or maintenance of any electrical transformer or associated switchgear."

[48-1-o]

## ANNEXE

1. L'article 3 du *Règlement n° 1 sur les biphényles chlorés* est ainsi remplacé:

"3. Aux fins du paragraphe 8(2) de la Loi, les emplois suivants des biphényles chlorés dans les opérations commerciales, la fabrication et la transformation sont interdits:

a) à compter du 1<sup>er</sup> janvier 1979, dans l'exploitation de tout produit, machinerie ou équipement sauf:

(i) les condensateurs électriques, les transformateurs électriques et l'appareillage connexe;

(ii) l'équipement de transfert de chaleur, l'équipement hydraulique, les électro-aimants et les pompes à diffusion de vapeur conçus pour utiliser des biphényles chlorés et mis en service au Canada avant le 1<sup>er</sup> mars 1977;

(iii) la machinerie ou l'équipement destinés à détruire la structure chimique des biphényles chlorés;

b) à compter du 1<sup>er</sup> janvier 1979, dans l'exploitation d'électro-aimants qui servent à manutentionner les aliments destinés à l'homme et aux animaux ou leurs additifs;

c) dans les produits, la machinerie ou l'équipement fabriqués ou importés au Canada après le 1<sup>er</sup> septembre 1977, sauf les condensateurs électriques, les transformateurs électriques et l'appareillage connexe;

d) dans les condensateurs électriques, les transformateurs électriques et l'appareillage connexe fabriqués ou importés au Canada après le 1<sup>er</sup> janvier 1979;

e) après le 1<sup>er</sup> janvier 1979, dans la réparation et l'entretien des produits, de la machinerie ou de l'équipement autres que les transformateurs électriques et l'appareillage connexe; et

f) après le 1<sup>er</sup> janvier 1979, comme nouveau fluide de remplissage ou comme fluide d'appoint pour la réparation ou l'entretien des transformateurs électriques et l'appareillage connexe."

[48-1-o]

ENVIRONMENTAL CONTAMINANTS ACTPCB BOARD OF REVIEW

1302 - 200 Rideau Terrace  
Ottawa, Ontario  
K1M 0Z3

January 4, 1980

The Honourable John Fraser, P.C., M.P.  
Minister of Environment  
14th Floor  
Fontaine Building  
Ottawa, Ontario  
K1A 0H3

Dear Mr. Fraser:

The PCB Board of Review after holding public hearings on December 10, and after very full discussions with officials of the Department of the Environment and the Department of National Health and Welfare, has come to the conclusion that the proposed amendments to Regulation No. 1 dealing with Polychlorinated Biphenyls as set out in the Canada Gazette Part I dated December 2, 1978, appears to the Board to be a statement of rules governing the future manufacture, distribution and use of instrumentalities using PCBs which this Board can fully support. The Board therefore wishes to convey to you its approval of the content of the proposed amendments.

The Board views this approval as enabling the Government of Canada to proceed at once with the promulgation of the amendments.

The Board has a number of comments and recommendations to make about the general field to which the amendments refer but these comments will appear in the Board's report to you as a series of comments and recommendations and will be presented to you and the Minister of National Health and Welfare before the end of January.

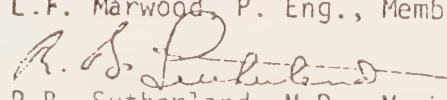
Yours sincerely,



Maxwell Cohen, Q.C., Chairman



L.F. Marwood, P. Eng., Member



R.B. Sutherland, M.D., Member

c.c. The Honourable David Crombie  
Minister, National Health  
and Welfare

PCB Board of Review



ENVIRONMENTAL CONTAMINANTS ACTPCB BOARD OF REVIEW

1302 - 200 Rideau Terrace  
Ottawa, Ontario  
K1M 0Z3

February 2, 1980

The Honourable John Fraser, P.C., M.P.  
Minister of Environment  
14th Floor  
Fontaine Building  
Ottawa, Ontario  
K1A 0H3

Dear Mr. Fraser:

The PCB Board of Review met on January 31, 1980 to entertain and consider submissions from officials of your Department recommending certain changes in the amendments to Chlorobiphenyl Regulations No. 1 which amendments had already been approved by the Board of Review in its letter to you of January 4, 1980.

I attach a copy of a letter from Mr. R.M. Robinson, Assistant Deputy Minister, Environmental Protection Service, Department of the Environment, representing the Government of Canada in this matter and a copy as well of the transcript of the proceedings that followed his submission.

Please note the Board's conclusions and recommendations with respect to these proposed changes to be found on pages 51-53 and 55-56 of the transcript which are attached.

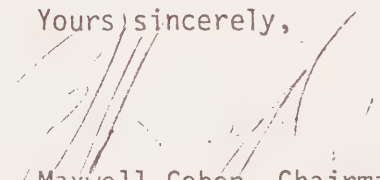
The Board has tried to relate these desired changes to the main objective of getting the regulations into effect as early as possible while at the same time providing those witnesses who appeared before the Board at the public hearings on December 10, 1979, with an opportunity to comment on these changes and on the proceedings of the meeting on January 31, 1980.

I enclose also a copy of my letter to Mr. Robinson explaining the Board's conclusions which are in effect a summary of the more detailed statement in the transcript.

The Board hopes to have its report in to you within the next two weeks in the English language version. The French language version and the publication of the report which will follow of course are matters over which the Board has no direct control, particularly the publication which of course is within a timetable set out in the Environmental Contaminants Act and subject to the administrative discretion permitted to the Minister up to 30 days after the receipt of the report.

The Board will now proceed to fulfill the request made to it in Mr. Robinson's submission to the Board in hearings of December 10, 1979 namely to study and recommend procedures for the more effective organization, operation and management of Boards of Review in the future with the hope of standardizing and simplifying the entire process to the advantage of the public and the Departments concerned. The Board expects to have this Second Report ready for submission to you and the Minister of National Health and Welfare before the end of February or at the latest by mid-March, 1980.

Yours sincerely,



Maxwell Cohen, Chairman  
PCB Board of Review

c.c. L.F. Marwood  
R.B. Sutherland

The Honourable David Crombie

J.B. Seaborn

R.M. Robinson

P. Toft

ENVIRONMENTAL CONTAMINANTS ACTPCB BOARD OF REVIEW

1302 - 200 Rideau Terrace  
Ottawa, Ontario  
K1M 0Z3

February 2, 1980

Mr. R.M. Robinson  
Assistant Deputy Minister  
Environmental Protection Service  
Department of Environment  
15th Floor, Place Vincent Massey  
Ottawa, Ontario  
K1A 1C8

Dear Mr. Robinson:

The Board is in receipt of your letter addressed to me dated January 31, 1980 and dealing with certain proposed changes in the amendments to Chlorobiphenyl Regulations No. 1.

The Board has had the benefit of your presentation to it on January 31, 1980 and the detailed discussion which followed has clarified several points made in your letter.

The central problem of your letter as the Board understands it is the presence of certain omissions in the amendments as published in the Canada Gazette on December 2, 1978 which were the subject of the public hearing on December 10, 1979.

For the reasons set out by me at the end of the presentation made to the Board on January 31, 1980 and attached herewith as an extract from the transcript of those proceedings, the Board is satisfied that these changes do not amount to material alterations in the amendments as published on December 2, 1978 and as further examined in the public hearings on December 10, 1979.

Nevertheless, the Board is also satisfied that in the interest of fairness to all interested parties, as required both by the principles under which a Board of Review must operate and also in accordance with the language and the spirit of the Environmental Contaminants Act itself, it would be in the interest of all concerned if a copy of the manuscript of the proceedings of January 31, 1980 were sent to all witnesses who had testified on December 10, 1979 or had indicated an interest in testifying even though they were not able to be present, e.g. the National Indian



Brotherhood. The letter of transmittal to these witnesses will invite them to make whatever comments may be of interest to them and submit these comments to the Board no later than 20 days after the mailing of the transcript to them.

As indicated in the attached extract from the transcript this procedure will not delay the completion of the Board's report which is now in the final stages of preparation for submission to the Minister of Environment and the Minister of National Health and Welfare.

The effect of this procedure will be to permit the Minister to follow the procedures required leading to the promulgation of the amended order as now changed by the words set out in your letter of January 31, 1980.

Should comments of the interested parties receiving copies of the transcript of the January 31, 1980 proceedings require further observations by the Board these will be transmitted to the Minister in a supplementary report if, in the opinion of the Board such a supplementary statement or analysis is deemed to be necessary.

The Board hopes that the procedures briefly outlined above and set out in greater detail in the attached extracts from the transcript will resolve the problems arising from the changes in a number of words, definitions and dates submitted by you on January 31, 1980.

Finally, in this connection the Board wishes to remind you that the Board's letter to the Minister of January 4, 1980 stating that the Board has now approved of the amendments which were the subject of the public hearings on December 10, 1979 remains valid subject to the changes referred to in this letter and submitted by you to the Board for consideration on January 31, 1980.

Yours sincerely,

Maxwell Cohen, Chairman  
PCB Board of Review

c.c. L.F. Marwood  
R.B. Sutherland  
The Honourable John Fraser  
J.B. Seaborn  
P. Toft

## **APPENDIX B**

Presentation by the Government of Canada to the Board  
at the Public Hearing on December 10, 1979

THE FEDERAL GOVERNMENT'S POSITION CONCERNING  
THE REGULATION AND  
THE PHASING-OUT OF ALL USES OF PCBs IN CANADA

PRESENTED

BY

J.E. Brydon

Mr. Chairman, members of the Board, I very much appreciate this opportunity to address the Board and to explain the federal government's actions concerning the regulation and the phasing-out of the uses of PCBs in Canada.

As you are undoubtedly aware, the biological and toxicological effects of PCBs are very well documented in scientific and medical literature; consequently, I will be emphasizing the positive approaches the federal government is taking to control specific uses of PCBs, rather than enumerating the perils associated with the continued use and release of PCBs into the environment.





During the United Nations Conference on the Human Environment in June 1972, a Resolution was passed calling on Governments to minimize the release of dangerous or toxic substances, especially where they are persistent. In 1973, in line with this Resolution, the Council of the Organization for Economic Co-operation and Development (OECD) made a major Decision that all member countries should limit the use of PCBs to enclosed uses and should develop control mechanisms to eliminate the release of PCBs into the environment. The "OECD Decision", establishing co-ordinated environmental regulatory action among OECD countries, laid stress on the ultimate need to entirely eliminate the dispersal of PCBs.

Canada supported the OECD Council Decision of 1973 and, in 1975 established a major Task Force, comprised of technical experts and scientists from federal agencies and from departments of the Ontario provincial government, to examine the OECD Decision, document the quantities of PCBs in Canada, determine the levels of PCBs in different ecosystems, determine the routes by which PCBs were entering the environment, and recommend controls that should be prescribed by regulation when the new Environment Contaminants Act was promulgated.

In the April 1976 Report on Background to the Regulation of PCBs in Canada, the Task Force unanimously recommended the phasing out, by regulations, of all uses of those PCBs that were highly persistent in the environment. Based on the recommendations in this Report, the federal government publicly announced its intention to phase out all uses of PCBs.

#### PCB Regulations No. 1

The Environmental Contaminants Act came into force in April 1976, and the development of the Proposed Chlorobiphenyl Regulations No. 1 was initiated. As required under subsection 5(1) of the Act, the Ministers of the Environment and National Health and Welfare offered to consult with the provincial governments and appropriate departments and agencies of the federal government in order to determine whether the significant danger posed by the continued release of PCBs into the environment would be eliminated by any actions taken or proposed to be taken under any other law. There was unanimous approval of the proposed regulatory action and the scheduling of PCBs under the Act. The final version of the PCB Regulations No. 1 was published in the Canada Gazette on September 7, 1977, and was immediately implemented.



### Labelling of PCB Equipment

During 1978 industry throughout Canada completely co-operated with Environment Canada in a comprehensive inventory of all PCB capacitors and transformers, and carried out a thorough labelling program to alert industry and government employees that these specific units, equipment, storage areas and transformer vaults contained PCBs, an environmental contaminant, and any leaks or spills must be reported to Environment Canada.

### Proposed Amendments to PCB Regulations No. 1

Following the promulgation of the Chlorobiphenyl Regulations No. 1 in September 1977, work immediately commenced on the development of amendments to further restrict certain uses of PCBs. The major objective in developing the amendments was to prohibit the uses of new PCBs as this would result in a total prohibition of the importation and sale of PCBs. The rationale for this tactic was the need to eliminate the serious potential dangers inherent in the transportation, handling and storage of PCBs for use, and to prevent the addition of further quantities of PCBs to the amount already in Canada.

### Make-up Fluid (3f)

In order to determine the effect on users of the phase-out of the use of PCBs in transformers and the feasibility of using alternative fluids for make-up filling, Environment Canada sponsored a comprehensive

-5-

study in April 1978 which included a two-day seminar. Participants included transformer manufacturers, transformer users, service and maintenance representatives, and federal and provincial government officials. The fifty-five participants (42 industry and 13 government) unanimously agreed that:

1. PCBs in transformers should be phased out of use by natural attrition.
2. Use of PCBs for make-up filling of transformers should be banned (under the Environmental Contaminants Act).
3. Non-PCB fluids should be used for make-up filling in transformers.
4. Import of PCBs into Canada should be banned.
5. Transfer of ownership or sale of redundant PCB-filled transformers for re-use should be prohibited.\*

These recommendations are included in the Dillon Report on PCB in Transformers and were used in the development of the proposed amendments to prohibit the use of PCBs as new filling or as make-up fluid in transformers. The Seminar participants completely agreed that the most important aspect of this proposed prohibition was the fact that it forces transformer users to improve maintenance procedures because the use of an alternate fluid as make-up fluid is limited to approximately 33% of the volume of the dielectric fluid in transformers. Improved maintenance procedures directly result in substantially reducing the amount of PCBs released to the environment.

\* This recommendation will be handled by a proposed product regulation now under development.

Electromagnets (3b)

A Study of the use of PCB filled electromagnents determined that their use over grain conveyor belts to remove tramp metals actually posed a significant threat to human health and the environment because of the potential for leaks or spills of PCBs on food or feed products; consequently, the federal government decided to propose the prohibition of the use of electromagnets over food. On the other hand, PCB-filled electromagnets are also used over coal-conveyor belts to remove tramp metals from coal being conveyed to high temperature furnaces in power plants. Since electromagnets are similar to electrical transformers, are sealed units, and are relatively safe in use over coal-conveyor belts, the federal government decided to permit this specific use.

Electrical Transformers and Capacitors (3d)

The life expectancy of an electrical transformer is approximately forty years. Since the federal government has frequently stated its plans to phase-out all uses of PCBs, the second phase had to propose the elimination of new electrical equipment containing PCBs. Additionally, electrical transformer manufacturers had readily switched to the use of alternative fluids, in anticipation of the regulations, in the manufacturing of transformers. Similarly, manufacturers of capacitors were in the process of switching to an alternate dielectric for use in capacitors. The proposed prohibition of these two uses of PCBs was readily accepted by industry as they, too, recognized the need to eliminate the use of PCBs and, also, to eliminate the need to transport heavy, PCB-containing equipment which poses a significant threat to the environment because of the great potential for accidental spills.



Servicing or Maintenance (3e)

In order to prohibit the importation and sale of PCBs, it is necessary to prescribe the uses for which PCBs may not be used; consequently, the federal government proposed the prohibition of the use of PCBs in the servicing or maintenance of any product, machinery or equipment, other than electrical transformers, but their use in the servicing and maintenance of transformers does not include the use of PCBs as new filling or as make-up fluid. This amendment prohibits the importation and sale of PCBs for any manufacturing, commercial or processing use.

Final Amendments

It is the federal government's intention to proceed with promulgating the PCB regulation amendments following the PCB Board hearing on December 10, 1979.

Additional Regulation Strategy

As soon as we complete a study of the use of PCBs and alternative fluids in non-electrical equipment, the federal government will, in all probability, propose new amendments to the PCBs Regulations No. 1. The proposed amendments will address the use of PCBs in heat transfer equipment, hydraulic equipment and vapour diffusion pumps.

As permitted under subsections 8(1)(a) and (b) of the Act, the federal government is developing a "Release Regulation" to prohibit the wilful release of PCBs into the environment in a quantity or concentration that exceeds the maximum quantity or concentration prescribed in the regulations, and under conditions prescribed.

Under subsection 8(4), a Product Control Regulation is being developed to prohibit the importation, manufacturing or sale of any product that contains PCBs in a quantity or concentration that exceeds the maximum prescribed by the regulations.

The federal government's decision to propose the scheduling of PCBs under the Environmental Contaminants Act was unanimously approved by provincial governments and industry. The planned phase-out, by regulations, of all uses of PCBs will continue as publicly stated. The federal government does not consider the notices of objection to the proposed PCB Regulation amendments a factor that illustrates any disparity in its planned regulatory action. On the contrary, when one considers the extent of the use of PCBs in industry, the effects of the regulatory action on industry, and the number of users, manufacturers and service companies and the interested environmental groups who may or could have objected to the proposed control mechanisms had they been unrealistic, the federal government considers that its plans are being widely accepted and approved.

## **APPENDIX C**

Presentation by the Ontario Mining Association to the  
Board at the Public Hearing on December 10, 1979





ONTARIO MINING ASSOCIATION

PRESENTATION

RE

PCB BOARD OF REVIEW

December 10, 1979

Ottawa, Ontario

The Ontario Mining Association welcomes this opportunity to appear before this PCB Board of Review to comment on the uses of equipment employing PCB dielectric fluids. The Association supports the posed ammendment Section 3F to the chloro biphenyl regulations.

The Ontario Mining Association (OMA) is an organization representing thirty-eight (38) producing companies in the mining industry. Smelting and refining operations are included in the membership as well as the mining division or subsidiaries of companies primarily engaged in other industry, i.e. steel. The OMA does not include in its membership exploration, diamond drilling, contract mining companies or mining consultants.

Canada ranks third in the world as a producer of minerals and Ontario produces almost forty percent of the nations' annual output of metallic minerals. The industry, primarily located throughout Northern Ontario, employs approximately 40,000 individuals directly, and it is estimated to indirectly support the employment of an additional 230,000 Canadians. A substantial portion of the operating mines are located near waterways which feed into the Great Lakes. Notwithstanding the fact that errors due to the limitations of knowledge were made in the past, environmental protection has been a continuing objective of the Ontario mining industry for decades. Similarly, the safety and well-being of its employees has received the highest priority of management. It has always been the industry's consistent



position that, given responsible management and government, industrial enterprise and the environment can co-exist. To this end, the mining companies have and continue to research and develop new technologies to mitigate the impact of the mining industry on out land, water, air and people resources.

Polychlorinated Biphenyls began to see use in the mining industry more than four decades ago. The use of PCB's in transformers and power capacitors was considered prudent by all. This very stable non-flammable fluid would inhibit potentially disastrous fires underground as well as in our smelters and refineries. The safety of employees and property was the prime concern.

The use of PCB's continued to expand rapidly throughout the world - this miracle fluid was used in paints, carbon paper, chewing gum and a host of other materials in addition to dielectric fluids.

In 1968, when a number of Japanese workers were taken ill after eating rice contaminated by a heating fluid which contained PCB's, the alarm was first raised. Shortly thereafter, scientists who were looking for DDT and its decomposition products found traces of PCB's in Arctic animals. The environmental effects of this once majestic fluid began to appear around the world. However, the full impact of these effects was not fully recognized by all legislative groups. In 1975, some

exhibited a desire to perpetuate the use of askarel because of its low flammability, whereas others indicated a desire to ultimately ban the use of all PCB's. The development of this dichotomy has created a dilemma for industry.

Today, Ontario - indeed our country - is entirely dependent upon sites within the United States to dispose of all materials contaminated with PCB's. The disposal of millions of pounds of PCB's not only from the mining industry but from the entire industrial spectrum within our national boundaries is a gigantesque problem.

The Association takes the view that all is neither bad nor lost. Legislation which may be promulgated should give due regard to an orderly discontinuance of PCB containing materials. During the transition from PCB fluids to a satisfactory replacement, administrative controls would be developed for the use and handling of this material. The Association believes these controls can be developed expeditiously. The administrative controls developed by a number of our Association members indicates the responsible position taken by these companies and the priority to which they have addressed this problem.

The Association believes that with sound administrative and engineering controls the use of askarel filled equipment should continue to obsolescence. The orderly retirement of such equipment will enable the mining industry to proceed in a

manner which will not degrade the environment or the health of its employees. It is essential that the financial burden which the industry is currently carrying not be increased.

The Ontario Mining Association endorses the concept of Government - Industry consultation and co-operation. The hearing today is a testimony to the ability of Industry and Government to work together on the solution to an environmental problem. The success of this and of future discussions will be dependent upon the commitment of both in establishing a climate of fiduciary co-operation to make it succeed.

LIST OF MEMBER COMPANIES

The Adams Mine Limited  
The Algoma Steel Corporation Limited  
    -Algoma Ore Division  
Caland Ore Company Limited  
Campbell Red Lake Mines Limited  
Canada Talc Industries Limited  
Canadaka Mines Limited  
Canadian Johns-Manville Company  
    -Reeves Mine  
Canadian Rock Salt Company Limited  
Central Patricia Gold Mines Limited  
Denison Mines Limited  
Dickenson Mines Limited  
Dome Mines Limited  
Domtar Chemicals Limited  
    -Sifto Salt Division  
Falconbridge Nickel Mines Limited  
Falconbridge Copper Limited  
The Griffith Mine  
Hedman Mines Limited  
Hollinger Mines Limited  
Inco Limited  
Indusmin Limited  
Kerr Addison Mines Limited  
Little Long Lac Gold Mines Limited  
Madawaska Mines Limited  
Marmoraton Mining Company Limited  
Mattabi Mines Limited  
McIntyre Mines Limited  
National Steel Corporation of Canada  
    Limited  
Noranda Mines Limited-Geco Division  
Noranda Mines Limited-Inco Limited  
    -Lagmuir Division  
Rio Algom Limited  
Selco Mining Corporation Limited  
Sherman Mine  
Steep Rock Iron Mines Limited  
Teck Corporation Limited  
    -Silverfields Division  
Texasgulf Canada Limited  
Union Miniere Explorations and Mining  
    Corporation Limited  
Upper Canada Resources Limited  
Willroy Mines Limited  
    -Macassa Division



## **APPENDIX D**

Presentation by the Canadian Paperworkers  
Union to the Board at the Public Hearing on December  
10, 1979



SUBMISSION TO THE BOARD OF REVIEW ESTABLISHED TO INVESTIGATE  
OBJECTIONS TO PROPOSED RESTRICTIONS ON THE USE OF POLYCHLORINATED  
BIPHENYLS (PCB) UNDER THE ENVIRONMENTAL CONTAMINANTS ACT

The Canadian Paperworkers Union (CPU) is a trade union representing approximately 60,000 workers in the pulp and paper, converting and forest products industries. The members of the CPU are employed in the industry from coast to coast, in every Canadian province except Prince Edward Island.

This submission is made in the knowledge that a number of corporations (one of them a pulp and paper company) had, initially, indicated their intention to object to proposed restrictions on the use of PCBs but that those objections were subsequently withdrawn. Nevertheless, if the Board of Review established by the Ministers of the Environment and of National Health and Welfare is to formally assemble and later report its recommendations, the CPU wishes to offer some observations for the consideration of Board members.

We have assumed, for the purposes of this Submission, that the composition, properties and some aspects of the danger to human health and the environment of PCBs are familiar to members of the Board.

The significant danger to human health posed by the substance was reflected in the fact that PCBs were the first substances scheduled and regulated under the Environmental Contaminants Act. The regulations prohibiting the use of PCBs in all but a narrow, specified range of equipment became effective September 1, 1977.

An implicit acknowledgement that the regulations restricting further commercial application of PCBs were not stringent enough is provided by the further proposed restrictions published in Part 1 of the Canada Gazette, December 2, 1978.

It is our understanding that the application of these further restrictions was to be effective in 1979 and the initial purpose for establishing this Board of Review was the receipt of objections to the further proposed regulation amendments.

It is further our belief that while the withdrawal of objections may implicitly be construed as a recognition of the danger of PCBs to human health and to the environment, the question of safe disposal of existing stocks of the substance and the use of a satisfactory substitute remain.

In the event that this assumption is not correct, the CPU would like to offer some points for consideration by the Board of Review.

#### Incidents

A number of spills and leaks of PCB have been reported or uncovered over the past few years. It is not unreasonable to assume that incidents concerning accidents with the substance have not been reported or publicized.

So far as we are aware, the major spill or leakage took place at the Federal Pioneer Electrical plant in Regina when 1,500 gallons were released in 1976. As a peripheral result of the recent investigation of that spill late last year, three current or former employees of another Regina company were reported to have been involved in another PCB spill (one of them involving a previous employer).

A spill was reported to have taken place at the Federal Government-owned grain elevator in Prince Rupert in 1974 which had a serious effect on local marine ecology. (It may be of interest to note that we have received a report that PCB was stored in buckets in a plywood box in the lunch room at the elevator until very recently, and may, in fact, still be there).



Some 2½ years ago, a transformer being moved inside the mill of Eurocan Pulp and Paper Co. at Kitimat suffered a ruptured internal pipe. A spill of 25 gallons of PCB was reported to have been flushed down the drain.

Within the past six weeks reports have been circulated of a leak of PCB from a transformer in a feed-processing mill in Billings, Montana. Feed from the mill was fed to chickens and waste chicken meat from the affected poultry was fed to mink in the Fraser Valley of B.C.

These are some incidents which have come to public attention. One can only speculate on the size of the tip of the iceberg which they represent in relation to the total spills and leakages of PCB in Canada during the past few years.

#### Health Hazards

We do not pretend to have definitive scientific or medical knowledge of the effects, both short and long-term, of PCB. However, we know that human beings have come into contact with PCB, directly in their work and probably indirectly through the food chain.

It is our understanding that PCB can enter the human body through the unbroken skin as well as through cuts and abrasions. They can also be inhaled in vapours and have an odour like mothballs but, in normal use at room temperature, the inhalation risk is not great.

When PCB gets on the skin, it removes natural fats and oils, as do most common organic solvents. The subsequent drying and cracking of the skin can lead to a painful and disfiguring skin condition known as chloracne. Both liquid and vaporous forms can cause irritation of the eye tissues. Liver damage may result from prolonged exposure through inhalation.

There is some evidence from animal experiments that PCB can cause cancer. Laboratory tests on animals inhaling considerable concentrations of diphenyls have produced quicker and more difficult breathing, loss of appetite and weight, muscular weakness and, with high concentrations, coma and death.

Women who may have been exposed to PCB in an industrial application and intend to breast-feed their babies are advised to consult their physician.

A more potentially serious problem created by PCB relate to its toxicity or poisonous nature and the fact that its great chemical stability means that it does not decompose in the environment and seem to increase in intensity in the food chain.

Fish in the Great Lakes are believed to be a source of high concentration of PCB in herring gulls. Fish-eating birds studied had a high incidence of embryos dying during incubation and of deformities in hatched chicks. Mink farmers in the area have experienced heavy losses through feeding fish contaminated with PCB to their animals. (The Ontario safe drinking water level set for PCB is three parts per million.)

Under the Water Quality Agreements arising from the work of the International Joint Commission, some reduction has been noted in PCB levels in the Great Lakes, but the IJC notes that toxic pollution remains a "critical problem ... (and) that serious and effective controls are needed promptly". The Board of Review will be familiar with this situation.

Tests of the effects of PCB on chickens has shown that one variety, at least, created reduced egg production and hatchability. We are not aware of any research on humans who have consumed eggs produced by chickens which have ingested PCB.

Studies in Japan have shown excessive cancer rates among persons who consumed rice oils accidentally contaminated with PCB, but the direct relationship was not considered definitive. The 1971 studies indicated that in addition to chloracne, PCB exposure to humans caused pigmentation of the skin and nails, excessive eye discharge and swelling of the eyelids.

The real and potential danger of PCB has been established to our satisfaction, and, we believe, to the satisfaction of the scientific and health community. The actions already taken under the Environmental Contaminants Act indicate to us that government recognized the danger and is prepared to act.

It is our view that any industrial application of PCB should now be prohibited completely and supplies now in use collected and destroyed. Members of the Canadian Paperworkers Union, and other Canadian workers, should be protected from any further contact with the substance. Additionally, it is our view that an enquiry should be undertaken to ascertain those workers whose jobs have brought them in contact with PCB. At no cost to themselves, they should be given rigorous medical examinations to ascertain whether they have suffered any injurious effects as a result of that exposure and that the respective provincial Workers' Compensation Boards should be informed, for potential compensation purposes, as to the results of such examinations.

#### Disposal/Substitutes

We are not unaware of the problems of safe disposal of PCB. The pollution of the wider environment to safeguard the workplace would be counter-productive.

Equally, we understand the need for an acceptable substitute for PCB in its current industrial application.

To deal with the second point: We understand that Tetrachlorobenzene (TCB), or Trichlorobenzene, is widely regarded as an acceptable substitute for PCB and, to date, has not been proven to have the harmful effects associated with PCB.

The question about disposal is both difficult and likely to become more so. Disposal of excess PCB used to be accomplished by the simple expedient of shipping it across the U.S. border for dumping or destruction. That 'solution' appears no longer viable with U.S. initiatives to ban importation of waste PCB.



The Department of the Environment last year organized a workshop for industry to deal with the question of destruction by a method said to be both environmentally-safe and offering a potential of energy saving from the wastes. The rotary kiln process, which we understand could utilize existing cement kilns if necessary, may indeed provide for a safe method of disposal and a beneficial by-product.

An alternative method is said to have been developed by the Ontario Research Foundation in a process of combustion under water, known as WETOR.

Last month, two researchers at the Royal Military College in Kingston, Ontario, also announced that they have developed a high-heat process that will destroy PCBs without producing harmful emissions.

Scientists at the Massachusetts Institute of Technology last year announced a method of high-speed electron bombardment which would turn PCBs into water-soluble molecules, but this process does not seem to have been developed into a viable disposal method.

These disposal systems may or may not work and we are in no position to offer any scientific judgment on this point. However, the development of such destruction facilities has not been practically followed up to date. This may be in part attributable to questions about the effectiveness of destruction facilities which have been raised and to the efforts of environmentalists in Ontario and Alberta to oppose construction of plants in those provinces for the high-temperature incineration of toxic chemicals.

The Ontario Environment Ministry commissioned a study by the consulting firm of James F. McLaren which recommended, among other things, a 600 acre liquid waste disposal site in the Province. The site would accomodate a rotary kiln furnace to dispose of PCB, among other functions.



The complex technical and scientific questions of disposal may have been settled satisfactorily, the question now is: What Ontario community is going to welcome a 600 acre chemical disposal operation to its location?

A test burn of 20,000 gallons of liquid waste was to be conducted at the St. Lawrence Cement Co. plant in Mississauga, Ontario, to dispose of PCB. A court hearing relating to the Ontario Environmental Assessment Act and the Mississauga PCB by-law has been postponed indefinitely. This course of events flowed from opposition by local environmental groups.

And that was before the Mississauga train wreck!!

#### Recommendations

It is the belief of the Canadian Paperworkers Union that the matter of securing a waste disposal site must have the highest priority. In the interim, a ban on the use of PCB in any context should be imposed and safe storage ensured or provided for PCB now in existence.

Thorough medical examinations of workers who have been in contact with PCB should be undertaken and provision for compensation made for those whose health has been affected by PCB contact.

Further, the relevant Ministries of government, perhaps with the co-operation of the Canadian Centre for Occupational Health and Safety, should insist upon more rigorous standards of assuring the safety of substances used in the processes of industry and the establishment of a more efficient system of monitoring of incidents and their potential consequences to the health of workers.

Respectfully submitted

  
L.H. Lorrain  
President  
Canadian Paperworkers Union

Ottawa  
December 10, 1979

# SOURCES

- International Labour Organization, Geneva: Occupational Health and Safety
  - Deichman, W.B.; Kitzmiller, K.V.; Dierker, M; Witherup, S (1947). Observations on the effects of diphenyl, o- and p-aminodiphenyl, o- and p-nitrodiphenyl and dihydroxyoctachlorodiphenyl upon experimental animals. Journal of Industrial Hygiene and Toxicology, 29, 1.
  - Karrer, P. (1948). Lehrbuch der organischen Chemie, Rascher Verlag, Zürich
  - Pecchiai, L.; Saffiotti, U. (1957). Studio della tossicità del difenile, dell'ossidifenile e della loro miscela ("Dowtherm"). Medicina del Lavoro, 48, 247.
- Journal of Occupational Medicine, Vol. 18, No. 2
- Occupational Health and Safety Branch, Government of Saskatchewan
- Workplace/March 1978, Occupational Health and Safety Division, Government of Ontario
- Daily Press:
  - Montreal Gazette, May 16, 1978
  - Montreal Gazette, October 29, 1979
  - Regina Leader Post, December 7, 1978
  - Regina Leader Post, January 13, 1979
  - Regina Leader Post, January 26, 1979
  - Regina Leader Post, February 17, 1979
  - Toronto Globe and Mail, October 18, 1979
  - Terrace Herald, October 10, 1979
  - Terrace Herald, October 16, 1979
  - Prince Rupert Daily News, October 24, 1979
  - Toronto Star, November 20, 1979
- House of Commons Standing Committee on Agriculture, November 1, 1979.

## **APPENDIX E**

Correspondence Concerning the Role of the Board in the  
Light of the Withdrawal of the Notices of Objection







Deputy Minister  
~~Secretary~~ Environment Canada

Sous-ministre  
Pêches et Environnement Canada

Ottawa Ontario  
K1A 0H3

NOV 13 1979

Professor Maxwell Cohen  
Chairman  
PCB Board of Review  
1302-200 Rideau Terrace  
Ottawa, Ontario

Dear Professor Cohen:

THE PCB BOARD OF REVIEW AND ITS OPERATIONS

At an informal meeting of officials of the Departments of Environment, National Health and Welfare and Justice, with members of the PCB Board of Review on November 7, it was reported that the two remaining Notices of Objection had just been withdrawn. I understand that the implications of this withdrawal were discussed in a preliminary way by government officials and by members of the Board and that it was agreed that the departmental position would be put in writing for consideration at a subsequent meeting of government officials with the board members on November 14, 1979. After consultation among our three departments, the following represents the government position.

Background

Canada supported the OECD Council Decision of 1973 to limit the use of PCBs to enclosed uses and is committed to developing controls of the so-called dispersive uses of them. The legislative vehicle to do so became available with the passage of the Environmental Contaminants Act in 1976. PCBs were added to the Schedule to the Act in 1977, i.e., it was determined that the continued use of PCBs constituted a significant danger to the environment and human health. Regulations were simultaneously imposed prohibiting all dispersive uses of PCBs. A letter had been received from the National Indian Brotherhood but it was ruled not to be a Notice of Objection because the concern expressed was only that the first regulation did not go far enough.

The long-range government policy announced in 1976 was that PCBs should be eventually phased out entirely. The second stage to that phase out was dealt with in the proposed amendment to Regulation # 1 dated December 2, 1978. Four Notices of Objection to that proposed amendment were filed within the 60 day period required by law. Two of those Notices of Objection were subsequently withdrawn. A Board of Review was announced by Notice in the Canada Gazette,

October 6, 1979 to consider the proposed regulations, the two remaining Notices of Objection and matters relating thereto as described in Section 6 of the Environmental Contaminants Act. Following the establishment of the Board, the two remaining Notices of Objection were withdrawn November 6, 1979. Had those Notices of Objection been withdrawn before the establishment of the Board, no Board would have been required, and the Government would have returned to the normal process of promulgation of regulations. The PCB Board of Review, however, has been established, and this memo provides the government position on this special situation.

As a result of the discussions on November 7, I understand that three options were identified:

1. Because the notices of objection which triggered the establishment of a PCB Board of Review have subsequently been withdrawn, the very grounds for the Board and the direction of its deliberation have been in fact removed, and the Board might be disbanded at this time.
2. Because it has been announced on October 6, 1979 that a Board of Review will be held and that hearings will be held beginning on December 10, and because the Board has powers to enquire into matters surrounding the proposed regulation, the Board might continue to function without dealing specifically with the withdrawn Notices of Objection;
3. Because the establishment of a Board has been announced, because the date of the hearings has been set, and because the Board must give "any other interested or knowledgeable person a reasonable opportunity of appearing before the Board," a decision to continue or to disband the Board might be postponed in order to determine if any interested or knowledgeable person wished to be heard.

#### Legal and Jurisdictional Considerations

Arguably, once an Environmental Contaminants Board of Review (Board) has been established it has a mandate to continue the inquiry contemplated by subsection 6(2) of the Environmental Contaminants Act even though the objectors subsequently withdrew their objections. However it is submitted that the better view is that if the objectors withdraw their objections before the Board has embarked upon its inquiry, then the *raison d'être* for the Board no longer exists and it is then neither necessary nor desirable that the Board should conduct an inquiry at all.

The legislation provides that a Board shall be established only in those cases where a person having an interest has, within sixty days of the publication in the Canada Gazette of proposed regulations, filed a Notice of Objection with the Minister. If there is no objection, there is no Board established. The object of course is to permit the objector to make his views known before an impartial

Board which will weigh the objection and report to the Minister. There is also provision for other interested persons to participate before the Board. However their right to participate does not arise unless an objection is made. Since the right to be heard is predicated upon the existence of an objection it follows that upon the objection being withdrawn, the right to be heard disappears.

In the present case a task force of highly qualified experts spent approximately eight months examining all aspects of the dangers of PCB. In the result the government directed its present policy to phase out PCB's. This process has involved extensive consultation with industry and extensive publicity as well. No objection was registered to the addition of PCB's to the class of substances considered dangerous to the environment. If there were objections remaining to be considered, then the Board could usefully perform the task it was appointed to do by considering the regulations, the objections thereto and any other comments which interested persons might wish to make. For the Board now to embark upon an inquiry in the absence of subsisting objections would simply be to indulge in an exercise repetitive of that which has already been done by the task force in circumstances where there is clearly no dispute as to the appropriateness of the proposed regulations.

The task of a Board is to consider proposed regulations and the objections thereto and report thereon to the Minister of the Environment and the Minister of National Health and Welfare. In the present case, in view of certain representations made, it appears that certain minor changes will be made between the regulations as originally proposed and those which will ultimately be recommended to the Governor in Council. As a result the newly proposed regulations will again be published in the Canada Gazette with the ensuing opportunity for renewed objections which of course would give rise to a revival of the Board of Review process. It is submitted that this also militates in favour of the view that the Board as presently established ought not to embark upon an inquiry.

Section 11 of the Interpretation Act provides:

11. Every enactment shall be deemed remedial, and shall be given such fair, large and liberal construction and interpretation as best ensures the attainment of its objects.

It is submitted that Parliament ought not to be taken to have intended that the time and expense involved in the inquiry process under section 6 of the Act should be imposed upon the public purse when there is no subsisting objection.

#### Government Position

The position of the interested Departments is that the Board of Review should be disbanded as soon as possible.

The Government intends to implement its policy of eventual phase out of PCBs by a series of regulations as required. There has been no indication from any interested or knowledgeable person that the 1977 order scheduling PCBs should be rescinded nor that the first amendment to the PCB regulations is not an appropriate element of the eventual phase out of PCBs. The Government does not wish to delay unduly the promulgation of the amendment. The Government is continually receptive to suggestions for further controls or for further amendments of existing controls as they might become appropriate. With respect to the phase-out policy, regulations are being drafted to arm the subsection 8(1) of the Act--the release feature--and subsection 8(4)--the product control feature. These two subsections are the only areas where concentrations and quantities may be specified.

The Government is aware of the considerable publicity concerning PCBs. This publicity is related primarily to management of PCB wastes and to PCB spills. These, of course, were not the subject of the Notices of Objection and, therefore, would not come under the purview of the Board of Review.

Yours sincerely,

Original Signed by  
J. Blair Seaborn  
a signed original

J.B. Seaborn



1302-200 Rideau Terrace  
OTTAWA, Ontario  
K1M 0Z3

November 12, 1979

The Hon. John Fraser  
Minister, Department of the Environment  
& Post-Master General of Canada  
House of Commons  
OTTAWA

Dear Mr. Fraser:

The newly established PCB Board of Review met last Wednesday, the 7th of November at 10:30 a.m. in the L.B. Pearson building to discuss with officials of your department and the Department of National Health and Welfare certain procedures with respect to the necessary operations of the Board. It was a surprise to be told that one of the two principal objectors, namely, EUROCAN Pulp and Paper Limited, had sent a message by telex which had just reached your officials in time for the meeting, announcing the withdrawal of their objection. The other objector, the Iron Ore Company of Canada Limited, had some days before also sent by telex to your department a message to the effect that the company was withdrawing their objection. Therefore when the Board met last Wednesday, November 7, it was confronted with the non-formal messages by telex of both companies stating that they had withdrawn their objections. Now the Board is faced with the question as to the significance of these withdrawals for the future work of the Board.

As a result of discussions with officials of your department and the Department of National Health and Welfare, the Board decided to recommend to the officials who were present, for communication to you, the following:

- 1) The proposed press release announcing the membership of the Board should be withheld for the time being.
- 2) The proposed advertisements announcing the time and place of the hearings of the Board plus the invitation to any "knowledgeable persons" wishing to be heard was to be withheld for the time being from the four newspapers that had been selected.
- 3) The Board invited the Government of Canada -- the two Departments concerned -- to present its views to the Board on the significance of these withdrawals by the two companies of their objections for the future activities, if any, of the Board. The officials were asked to submit in writing a memorandum to the Board to reach members of the Board if possible before the Board would assemble again on Wednesday, November 14 at 10:30 a.m. at the L.B. Pearson building. In any

The Hon. John Fraser  
November 12, 1979  
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case, the Government of Canada is invited to present its view at that time to the Board, even if the memorandum had not yet reached Board members. It was assumed that if the memorandum did not reach the Board members before the meeting, the Government of Canada would submit its views both orally and in a memorandum as described above.

4) The Board suggested to the officials concerned at the meeting on November 7 that when it had received the views of the Government of Canada on the future activities of the Board, if any, the Board would then retire into executive session and decide what would be the future of its activities, if any, and would then advise the Government of Canada of these views.

Since these questions as listed above were developed, it has occurred to the Board that the Board is now a public body under Part I of the Inquiries Act and also that the October 6th Canada Gazette had announced the existence of the Board as well as the invitation to "knowledgeable persons" to present their views to the Board, if any, and the Board would be holding its public hearings in Ottawa on December 10 at 10 a.m. in the L.B. Pearson building. Considering, therefore, the public character of the Board under the Inquiries Act and considering the commitment to hold public hearings on December 10th, the Board is now concerned that its invitation to have the Government of Canada's views on its mandate may appear to be a private invitation on what is essentially a public matter. In other words, it seems to the Board that it would be improper, and certainly misunderstood, if the Board proceeded in private to hear the views of the Government of Canada on the question of its future mandate, if any.

Therefore, in order to avoid any suggestion of the Board operating in private and entertaining views of the Government of Canada which should be on record, the Board <sup>is considering taking</sup> ~~will take~~ the following position:

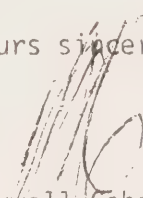
- 1) The Board looks forward to receiving a submission from the Government of Canada on its future mandate, if any, next Wednesday, November 14 at 10:30 a.m. as planned.
- 2) This document, however, cannot remain a private document and it must be made available at public request and its existence must be made known by some appropriate press release with respect to the status and work of the PCB Board of Review.
- 3) The Board, therefore, will recommend to the Government of Canada that it issue a press release after the meeting on November 14th, and referring to the following:
  - a) the creation of the Board and the names of its members;
  - b) the withdrawal of the objections by the Iron Ore Company of Canada Limited and EUROCAN Pulp and Paper Limited;

The Hon. John Fraser  
November 12, 1979  
Page 3

- c) the views of the Government of Canada with respect to the effect of these withdrawals on the future activities of the Board, if any; and the availability of these views to the public on request;
- d) the intention of the Board to fulfil the commitment to hold public hearings on December 10th as stated in the Canada Gazette on October 6th for any "knowledgeable persons" who may wish to be heard provided that the Board is informed of such intentions by any parties wishing to be heard on or before 5:00 p.m., December 7;
- e) In the event that there are no notices filed with the Board of any person or persons that they wish to be heard, the Board will meet formally on December 10 in order to fulfil the commitment and unless there are persons to be heard in accordance with these procedures, it will adjourn immediately upon the formal opening of its proceedings with a public explanation for the adjournment. The Board will then file a report with the Minister of the Environment as required by the Act.

I would be glad if your officials were to add to their comments which they are now preparing on the future mandate of the Board, their further comments on the procedures as outlined immediately above with particular reference to the proposed hearings of the Board on December 10th as announced in the Canada Gazette.

Yours sincerely,



Maxwell Cohen, Chairman  
PQB Board of Review

MC:db

cc Blair Seaborn, Deputy Minister of Environment  
R.M. Robinson, Assistant Deputy Minister  
Dr. Hazen Thompson ✓  
Dr. Sutherland  
Mr. Marwood

*Maxwell Cohen, D.C.*

Suite 1302, 200 Rideau Terrace  
OTTAWA, Ontario  
K1M 0Z3

November 16, 1979

Blair Seaborn Esq.  
Deputy Minister, Environment Canada  
14th Floor, Fontaine Building  
OTTAWA, Ontario  
K1A 0H3

Dear Mr. Seaborn:

This will acknowledge your letter of November 13 addressed to me as Chairman of the PCB Board of Review and dealing with the Board and its operations, particularly with reference to the effect on the Board's future activities arising out of the withdrawal of the objections that had been filed by the Iron Ore Company of Canada Limited and EUROCAN Pulp and Paper Limited.

Your letter crossed with the letter of the Board's, dated November 12, and addressed to the Hon. John Fraser with a copy to yourself. Both your letter and the Board's letter were considered by the officials present and the Board at the meeting of the Board on Wednesday, November 14 at 10:30 a.m. in the L.P. Pearson building. The views of the Government of Canada were presented by Mr. R.M. Robinson and Messrs. Bowie and Haskins as Counsel for the Departments concerned.

After an extensive discussion of the several issues raised by the withdrawal of the objections, the Board with the helpful comments of many of the officials present, decided to follow the procedures set out on pages 2 and 3 of its letter of November 12, referred to above.

I think it is correct to say that it was agreed by those present and principally concerned that these procedures would help to resolve as well as can be expected at this time, several of the unforeseen problems that arose out of the withdrawal of the objections by the two companies.

Would you therefore bring to the attention of the officials concerned in your department and the Department of National Health and Welfare, this consensus upon which the Board bases its decision which will follow the sequence outlined on pages 2 and 3 of its November 12 letter.



Blair Seaborn Esq.  
November 16, 1979  
Page 2

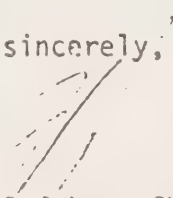
It was agreed that a draft press release in accordance with paragraph 3 of the Board's letter of November 12 was to be prepared by the Departments concerned and was to be submitted to the Board, hopefully by Friday, November 16. The Board expects to deal quickly by telephone with this draft and the approvals involved are expected to make it possible for the Government of Canada to release this draft as approved, Friday, the 16th of November or at the latest, Monday, the 19th of November. A suggestion has been made that when the Board sits for its public hearings on December 10 at 10 a.m., however brief those hearings may be, the Board should consider in its report to the Minister or Ministers whatever experiences arise out of the novel situation which the Board and the Government of Canada have encountered in this first Board of Review in the hope that such observations may contribute to an improved procedure in dealing with such situations in the future.

The Board will therefore include in its report its observations about the workings and procedures dealing with the Board of Review in addition to whatever other findings arise properly out of the public hearings, if any evidence is tendered to the Board at that time.

It is the Board's hope that the adoption of the above procedures will help to resolve the present situation that could not have been foreseen and that the Board's report to the Minister or Ministers will make some helpful contribution to the operation of future Boards of Review.

While the Board has referred to certain helpful discussions with officials as the basis for its decision to proceed as described above, The Board wishes to emphasize that the responsibility for the decisions taken remain that of the Board alone.

Yours sincerely,

  
Maxwell Cohen, Chairman  
PCB Board of Review

MC:db

cc The Hon. John Fraser  
Mr. R.M. Robinson ✓  
Dr. R.B. Sutherland  
Mr. L.F. Marwood  
Dr. Hazen Thompson



Deputy Minister  
Environment Canada

Sous-ministre  
Environnement Canada

EPS/J. Monteith/7-1640/lm  
Mr. R.M. Robinson/ADM/EPS

S0103

cc. DM's Office (2)  
Ottawa, EPS Records (1)  
K1A 0H3 Dept'l Records (1)  
EPS Correspondence Unit (1)

NOV 27 1979

Professor Maxwell Cohen  
Chairman  
PCB Board of Review  
Suite 1302, 200 Rideau Terrace  
Ottawa, Ontario  
K1M 0Z3

Dear Professor Cohen:

I am writing to confirm that as a result of discussions and an exchange of correspondence between the PCB Board of Review and the Government it has been established that the procedure recommended in your letter of November 12, 1979, would accomplish the earliest possible disbandment and reasonably meet the legal requirement of subsection 6(2) of the Environmental Contaminants Act.

This procedure is as follows:

- (1) The Board would fulfill the commitment to hold public hearings on December 10, as stated in the Canada Gazette on October 6, 1979, for any "interested or knowledgeable persons" who may wish to be heard provided that the Board is informed of such intentions of any parties wishing to be heard on or before 5:00 p.m., December 7, 1979.
- (2) In the event that there are no notices filed with the Board of any person or persons wishing to be heard, the Board will meet formally on December 10, 1979 in order to fulfill its commitment and will adjourn immediately upon the formal opening of its proceedings with a public explanation for the adjournment. The Board will then file a report with the Minister of the Environment and the Minister of National Health and Welfare as required by the Act.

Yours sincerely,

J.B. Seaborn

## **APPENDIX F**

Mr. Robinson's Statement to the Board at the Public  
Hearing on December 10, 1979







Ottawa, Ontario  
K1A 1C8

Your file    Votre référence

DEC - 7 1979

Our file    Notre référence

Professor Maxwell Cohen  
Chairman, PCB Board of Review  
1302 - 200 Rideau Terrace  
Ottawa, Ontario

Dear Professor Cohen:

The following is the text of a statement which I shall be making to the PCB Board of Review on December 10, 1979.

"Mr. Chairman, as you are aware this is the first occasion on which a Board of Review has been established under the authority of the Environmental Contaminants Act. You are also aware that the sequence of events following the appointment of yourself and the other two distinguished members to this Board is not a series of events addressed clearly by the legislation.

I would request, therefore, that the Board of Review include in your report those observations and suggestions which may be readily and quickly drawn from your experiences with the vagueness of the legislation encountered during the course of your executive meetings and this hearing. Your observations and suggestions could prove invaluable as advice for future courses of action taken by the government. These actions could include establishment and guidance of future Boards of Review and amendment of the legislation.


There are, in particular, two areas in which your comments and suggestions would be most valued. The first of these areas relates to the manner in which notices of objection considered to be frivolous might be dealt with without establishing a Board of Review. The second area of concern pertains to the course of action that should be taken in the situation where a Board is constituted and all Notices of Objection are withdrawn or the objectors fail to appear.

In closing this statement I wish to thank the Board for the opportunity to make this request."

- 2 -

This statement is a reflection of some of the concerns we have had after the notice of the hearings was published and the subsequent withdrawal of the objections to the proposed amendment of Chlorobiphenyl Regulations No.1.

Yours very truly,



R.M. Robinson  
Assistant Deputy Minister  
Environmental Protection Service

## **APPENDIX G**

Extract from the Proceedings of the Meeting on  
January 31, 1980, Summarizing the Board's Position  
Concerning the Suggested Changes in the Proposed  
Amendments to the Regulation





THE CHAIRMAN: You might have some refusals. I wonder if I could, if Dr. Sutherland and Mr. Marwood would agree, try with your permission, Mr. Robinson and Mr. Bowie, to summarize for the purposes of the record where we therefore stand. It seems to me we have reached the following position and perhaps I will do it in a sequence of numbers.

Number one, the Board having had a submission to it today from the Department of the Environment of clauses it would like to alter in the amendments to chlorbiphenyl regulation no. 1 and the Board having heard the views of the department to the effect that in its opinion these amendments however one might define material <sup>are</sup> and in essence an effort to close gaps in the original amendments which ought to be closed to make the scheme operable and sensible which was in the contemplation of the government and all the parties they consulted before the amendments were made. Number one.

Number two, the Board having heard this position generally agrees that no serious alteration has taken place in the amendments as they were presented to the Board in the order of October 6th, 1978 and it agrees that the amendments will improve the case of electromagnets, the servicing of them and prevent the kind of deterioration which could lead in due course to environmental damage through

potential explosions. Therefore, as a result of that technical analysis the Board regards that change as a distinct benefit to the scheme put forward in the amendments.

Number three, however, in view of the fact that at least three parties were before this Board on December 10th, 1979 who do not know about these changes and who are addressing their thinking to the amendments as they were on December 10th, 1979, the Board believed that fairness requires and good principle and operation of this Board, official Board, requires that these parties be notified about these changes which the Board has now examined and which the Board has now generally regarded as appropriate to the general scheme, and give such parties an opportunity not exceeding 20 days from the time they receive their communication from (the department on behalf of) the Board to give their views to the Board with respect to these changes.

Number four, upon the receipt of the views of those three parties who shall now be named, the Ontario Mining Association, the Canadian Pulp and Paperworkers Union and the National Indian Brotherhood, upon the receipt of their views, if any, the Board shall take these views into account and if the views have any significant impact upon the Board's thinking, the Board may write a supplementary memorandum for the interest or concern of the two ministers involved. If not, the Board will simply acknowledge the receipt and the information re-

ceived by the Board will become part of the record of the Board.

The Board cannot at this time forecast the nature of the document it might or might not write at that time.

I don't know, gentlemen, if that summarizes exactly where we stand?

MR. BOWIE: I think it does, Mr. Chairman, most ably, if I may say so.

THE CHAIRMAN: One more question, Mr. Robinson, may I have yours and Mr. Bowie's views on the correctness and the propriety of our sending a copy of the transcript when we invite the three parties to give us their views? I would think this would be proper.

MR. ROBINSON: I think it would be not only proper but very courteous.

THE CHAIRMAN: Very good. Then we will, Dr. Thompson, send the three parties mentioned a copy of the transcript of today's proceedings when we invite their comments on these changes, with a copy of Mr. Robinson's letter of today.

MR. MARWOOD: Mr. Chairman, one point on Mr. Robinson's letter of today.

THE CHAIRMAN: Mr. Robinson, Mr. Marwood has a point he would like to raise.

MR. MARWOOD: There is a minor correction there which I thought we might be going to come to but I had better get it in now to make sure. On page 2, the third paragraph concerning

THE CHAIRMAN: I was thinking, I may be wrong on this and perhaps Mr. Prahbu might advise me, that if in the event that the three parties were to write back and some of them have views if those views are not "material", I would guess that they would not have an impact upon us relating to the report we have already written. If they are material in the sense that they would be influential in the minds of Dr. Sutherland, Mr. Marwood and myself on a particular point, it seems to me that it would be wise to take the view as a practical matter that the report we have to file with you within the next two weeks, heaven willing, should not be held up because of that. There could be a supplementary report having its own timetable and I would ask you, Mr. Prahbu, what would prevent that concept of mine from being practical?

MR. PRAHBU: I think it is a very reasonable view to take, Mr. Chairman. I think we should not delay the first report to judge the materiality or otherwise of the additional comments or submissions received from the parties. I think it is quite proper to file an addendum to the report --

THE CHAIRMAN: Which would have its own similar timetable. I would say that is a bridge we can -- the worse case, scenario, would be this: that what is written to us after we have given our report which has been in the hands of the minister X days and not published really goes



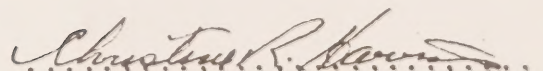
to the heart of something we didn't see. I would then have to consult with my colleagues and the minister to decide the best way to handle that, but barring that unforeseen development I think they can be considered two reports in their own separate timetables, without holding up the other.

Are there any further comments? Well thank you, Mr. Robinson, gentlemen, for your presentation and I think it will help me to clarify what would otherwise have been a quite seriously misconstrued situation.

We stand adjourned.

--- Adjournment

I HEREBY CERTIFY THAT I have, to the best of my skill and ability, accurately reported by Stenomask and transcribed therefrom the foregoing proceedings.

  
Christine R. Harris, CVR-CM





